Implementing Complete Streets

Major and Collector Street Plan of Metropolitan Nashville
A Component of Mobility 2030

Adopted: April 14, 2011, Amended: March 22, 2012
See http://www.nashville.gov/mpc/transportation/davidson.asp for amendments
Mission Statements

The Planning Commission guides growth and development as Nashville and Davidson County evolve into a more socially, economically and environmentally sustainable community, with a commitment to preservation of important assets, efficient use of public infrastructure, distinctive and diverse neighborhood character, free and open civic life, and choices in housing and transportation.

The Planning Department helps Nashville and Davidson County evolve into a more sustainable community, guided by a commitment to efficient use of infrastructure, distinctive and diverse community character, open and vibrant civic life, and choices in housing and transportation focused on improving the quality of life.

The Planning Department does not discriminate on the basis of race, color, national origin, gender, gender identity, sexual orientation, age, religion, creed or disability in admission to, access to, or operations of its programs, services, or activities. Discrimination against any person in recruitment, examination, appointment, training, promotion, retention, discipline or any other employment practices because of non-merit factors shall be prohibited.

For ADA inquiries, contact Josie Bass, ADA Compliance Coordinator, at (615)862-7150 or e-mail her at josie.bass@Nashville.gov. For Title VI inquiries contact Shirley Sims-Saldana or Denise Hopgood of Human Relations at (615)880-3370. For all employment-related inquiries, contact Human Resources at 862-6640.
“BE IT RESOLVED by The Metropolitan Planning Commission that 2011CP-000-001 is APPROVED WITH CONDITIONS, including an amendment to condition 13 by adding the following to the beginning of the condition, “Change the MCSP designation on Division Street from the I-40 viaduct to 8th Avenue South (US 31/SR 6) from T6-M-AB4 to T6-M-AB3” and by adding an additional condition: 15. Remove the Bosley Springs connector from the MCSP until the traffic study outlined in the Harding Town Center UDO rezoning ordinance (BL2005-550) as a Short Range Objective of Goal 1 of the Vehicular Circulation System is completed. (7-0-1)

Conditions of Approval:

1. Remove the MCSP designation on Carothers Road because of approved Ordinance No. BL2006-1295, which establishes streets standards on Carothers Road that meets the planning and mobility concepts of the UDO’s design standards and of the proposed MCSP. The accompanying MCSP map will depict Carothers Road as Collector-Avenue, but will provide no designation, and will include a note as follows, “Carothers Road shall be designed according to the streets standards established in the UDO.”

2. Keep the MCSP designation on Harding Road east of Bosley Springs Road to west of Belle Meade Plaza as T5-M-AB6-UM to maintain a designation that is comparable to the designation in the currently adopted MCSP.

3. Direct planning staff to fix typographical and grammatical errors as necessary.

4. Change the MCSP designation on Stewarts Ferry Pike from I-40 to McCrory Creek Road from T3-M-AB4 to T3-M-AB5 and on McCrory Creek Road to Lebanon Pike from T3-R-AB3 to T3-R-AB5 to reflect Public Works’ pre-planning to widen to five lanes.

5. Remove Oakley Drive from the MCSP from Trousdale Drive to Edmondson Pike to reflect the removal of the proposed connection from the Collector Plan as adopted in the Southeast Community Plan.

6. Change the MCSP designation on Charlotte Pike (US 70/SR 24) from Old Hickory Boulevard (SR 251) to River Road from T3-M-AB2-S, T3-R-AB2-S, and T3-M-AB3-S to T3-M-AB4-S, and T3-R-AB4-S accordingly as requested by Public Works and to maintain a designation that is comparable to the designation in the currently adopted MCSP. The MCSP designation will be reviewed with the community during the Bellevue Community Plan Update, which is currently underway.

7. Change the MCSP designation on Ashland City Highway (SR 12) from Briley Parkway (SR 155) to Clarksville Pike (US 41A/SR 112) from T3-M-AB4, T3-R-AB3, and T4-R-AB3 to T3-M-AB5, T3-R-AB5, and T4-R-AB5 to reflect the Nashville Area MPO’s recently adopted 2035 Regional Transportation Plan (RTP) that identifies the widening of this street to four lanes with a center turn lane in the FY 2016 to FY 2025 Horizon Years. The MCSP designation will be reviewed with the community, TDOT, and Public Works during the next update of the RTP and the next update of the Bordeaux-Whites Creek Community Plan.
8. Change the MCSP designation on Highway 100 from the County Line to the Natchez Trace Parkway from T2-R-AB2-S and T3-R-AB2-S to T2-R-AB4-S and T3-R-AB4-S as requested by Public Works and to maintain a designation that is comparable to the designation in the currently adopted MCSP. The MCSP designation will be reviewed with the community during the Bellevue Community Plan Update, which is currently underway.

9. Change the MCSP designation on the proposed Harding Place Extension from D-I-PAP4-S to F6* as requested by Public Works. A note shall be made on this designation as follows, “The proposed Harding Place Extension shall be designed as a multi-modal facility that adequately incorporates the needs of transit users, bicyclists, pedestrians, and other travelers adjacent to the corridor. It shall be re-designated to an appropriate MCSP designation(s) based on the finding of the environmental impact statement currently underway as of the original adoption date of this plan.” Additionally, the accompanying MCSP map shall change the depiction of the proposed Harding Place Extension to a Multimodal Freeway Corridor.

10. Change the MCSP designation on Korean Veterans Boulevard from 4th Avenue to 8th Avenue from T6-M-PAB4 to T6-M-PAB6* as requested by Public Works. A note shall be made on this designation as follows, “Upon completion of the construction currently underway as of the original adoption date of this plan, Korean Veterans Boulevard from 4th Avenue to 8th Avenue shall be redesignated to the appropriate MCSP designation(s) reflecting the final cross section.”

11. Depict on the accompanying MCSP map, an alternative conceptual alignment for the proposed extension of Walsh Road or “University Row” connector near the Trevecca University campus. The additional conceptual alignment shall be designated as T4-M-PAB4-UM. Additionally, change the MCSP designations of Polk Avenue from Nolensville Pike (US 31A/US 41A/SR 11) to Fesslers Lane from T4-M-AB3, T4-R-AB3, and D-I-AB3 to T4-M-AB3-UM, T4-R-AB3-UM, and D-I-AB3-UM. Change the MCSP designation of Fesslers Lane from Polk Avenue to Murfreesboro Pike (US 40/US 70S/SR 1) from D-I-AB4 to D-I-AB4-UM.

12. Change the dimensions of the width of the vehicular travel lanes and on-street parking in the MCSP document to reflect standards for urban lanes as set forth by the American Association of State Highway and Transportation Officials (AASHTO). A narrative added to the MCSP document defines urban travel lanes and non-urban travel lanes per AASHTO’s definition.

13. **Change the MCSP designation on Division Street from the I-40 viaduct to 8th Avenue South (US 31/SR 6) from T6-M-AB4 to T6-M-AB3.** Remove the MCSP designation on 11th Avenue South/Industrial Boulevard from Broadway (US 70/US 70S/US 431/SR 1/SR 24) to Division Street and on 12th Avenue South from Broadway (US 70/US 70S/US 431/SR 1/SR 24) to 11th Avenue South/Industrial Boulevard because of the street design guidance established on 11th Avenue South/Industrial Boulevard and on 12th Avenue South within the Arts Center Redevelopment District and further described in the adopted Gulch Master Plan. This guidance meets the mobility goals of the district and improvements completed from 2003-2006 by Metro during Phase 1 Infrastructure Improvements in the Arts Center Redevelopment District meet the goals of the MCSP. The accompanying MCSP map will depict 11th Avenue South/Industrial Boulevard as an Arterial-Boulevard and 12th Avenue South as a Collector-Avenue, but will provide no further designation, and will accordingly include a note as follows, “11th Avenue South/Industrial Boulevard (or 12th Avenue South) shall be designed according to the guidance established in the Gulch Master Plan for the Arts Center Redevelopment District.”

14. The MCSP will be effective as of August 1, 2011.

15. **Remove the Bosley Springs connector from the MCSP until the traffic study outlined in the Harding Town Center UDO rezoning ordinance (BL2005-550) as a Short Range Objective of Goal 1 of the Vehicular Circulation System is completed.**
WHEREAS the Guiding Principles of Mobility 2030 was adopted by the Metropolitan Planning Commission on September 27, 2007 as the Transportation Plan Functional Plan component of the General Plan of Metropolitan Nashville and Davidson County; and

WHEREAS, the Guiding Principles of Mobility 2030 called for the development of an updated Major and Collector Street Plan (MCSP) for the County which would be incorporated as a component of Mobility 2030; and

WHEREAS, Mayor Karl Dean issued the Complete Streets Executive Order on October 6, 2010, directing Metropolitan Government departments to “Give full consideration to the accommodation of the transportation needs of all users, regardless of age or ability...” and

WHEREAS, the proposed MCSP, entitled Implementing Complete Streets: Major and Collector Street Plan of Metropolitan Nashville, A Component of Mobility 2030, was prepared in accordance with the principles of both the Complete Streets and Context Sensitive Solutions approaches to transportation planning; and,

WHEREAS, countywide community meetings were held on October 26 and November 9, 2010 to discuss the proposed new MCSP; and

WHEREAS, a public hearing was held by the Metropolitan Planning Commission on February 24, 2011 to obtain additional input regarding the proposed MCSP; and

WHEREAS, the Metropolitan Planning Commission finds that the adoption of the MCSP is warranted;

NOW THEREFORE, BE IT RESOLVED, that the Metropolitan Planning Commission hereby ADOPTS Implementing Complete Streets: Major and Collector Street Plan of Metropolitan Nashville, A Component of Mobility 2030 and incorporates it as a component of Mobility 2030, which is the Transportation Functional Plan component of the General Plan for Metropolitan Nashville and Davidson County in accordance with Section 11.504(e) of the Charter of the Metropolitan Government of Nashville and Davidson County and a certified copy of Implementing Complete Streets: Major and Collector Street Plan of Metropolitan Nashville, A Component of Mobility 2030 is authorized to be filed with the Register of Davidson County, as required by Section 13-4-202, Tennessee Code Annotated.

James McLean /s/
James McLean, Chairman

Adoption Date: April 14, 2011

Attest
Richard C. Bernhardt /s/
Richard C. Bernhardt, Secretary and Executive Director
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

KARL F. DEAN, MAYOR

EXECUTIVE ORDER NO. 40

SUBJECT: Complete Streets Policy.

I. Karl Dean, Mayor of the Metropolitan Government of Nashville and Davidson County, by virtue of the power and authority vested in me, do hereby find, direct, and order the following:

I. The Metropolitan Government desires to support and encourage a transportation system that is safe and convenient for all users, regardless of age, ability, or mode of transportation through the development of Complete Streets.

II. Public Ways are public streets, roads, alleys, sidewalks, greenways and similar infrastructure.

III. Complete Streets are Public Ways that include some combination of appropriate facilities, as determined by the surrounding context, that accommodate all modes of transportation, including private vehicles, mass transit, walking, and bicycling.

IV. The Bicycle and Pedestrian Advisory Committee, Green Ribbon Report on Environmental Sustainability, the Nashville Livable Project Report, and the Healthy Nashville Leadership Council have all endorsed or recommended Complete Streets because of their mitigating impact on air pollution, greenhouse gas emissions, and public health problems such as obesity and asthma, and traffic hazards for pedestrians and bicyclists.

1. Policy. In conjunction with projects relating to the design, planning, construction, reconstruction, rehabilitation, or maintenance of Public Ways, departments, boards and commissions of the Metropolitan Government shall:

   a. Give full consideration to the accommodation of the transportation needs of all users, regardless of age or ability, including those traveling by private vehicle, mass transit, foot, and bicycle;

   b. Review all current Public Way plans, guides, regulations and standard drawings to comply with this Executive Order.

2. Exclusions. Appropriate justifications for excluding accommodations for specific transportation needs include, but are not limited to, findings that:

   a. Specific Complete Streets principles are prohibited by law, such as bicycle and pedestrian facilities within interstate highway corridors;

   b. The cost of complying with this Policy on a particular project would substantially exceed the public value to be realized, taking into consideration the need and probable use of the project;

   c. A scarcity of population or other factors such as the physical character or context of the built environment surrounding the Public Way area indicates an absence of current or future need; or

   d. Compliance with this Policy would substantially impair unique characteristics of great public value, such as historical importance.

3. Implementation. A decision to exclude accommodations for specific transportation needs made after appropriate consideration under this Policy shall be documented with supporting data that indicate the basis for the decision.

ORDERED, EFFECTIVE AND ISSUED:

Karl F. Dean
Metropolitan Mayor

Date: Oct. 6, 2010
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James McLean /s/
James McLean, Chairman

Adoption Date: April 14, 2011

Attest
Richard C. Bernhardt /s/
Richard C. Bernhardt, Secretary and Executive Director
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

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   d. Compliance with this Policy would substantially impair unique characteristics of great public value, such as historical importance.

3. Implementation. A decision to exclude accommodations for specific transportation needs made after appropriate consideration under this Policy shall be documented with supporting data that indicate the basis for the decision.

ORDERED, EFFECTIVE AND ISSUED:

Karl F. Dean
Metropolitan Mayor

Date: Oct. 6, 2010
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Chapter 1
Introduction

Metro Transit Authority (MTA) successes: Music City Star becomes Tennessee’s first commuter rail service. MTA adds new hybrid buses to the fleet and places them in service on the Gallatin Road Bus Rapid Transit route.
**Purpose of the Major and Collector Street Plan**

The *Major and Collector Street Plan* (MCSP) is a comprehensive plan and implementation tool for guiding public and private investment in the major streets (Arterial-Boulevards, Arterial-Parkways and Collector-Avenues) that make up the backbone of the city’s transportation system. It is a part of, and implements, *Mobility 2030*, which is a functional plan component of the General Plan.

*Mobility 2030* consists of four elements. The umbrella document of the transportation plan is *The Guiding Principles of Mobility 2030*. This document sets forth guidance for all modes of transportation and directs the adoption by the Metropolitan Planning Commission of the other three elements. These are:

1. The *MCSP* prepared by the Metro Planning Department and adopted by the Metro Planning Commission;
2. The *Mobility 2030 Transit Element*, which consists of the *Nashville Strategic Transit Master Plan* prepared by the Metro Transit Authority (MTA) in 2009, and;
3. The *Mobility 2030 Bicycle and Pedestrian Element*, which consists of the *Strategic Plan for Sidewalks and Bikeways* prepared by the Metro Public Works Department (MPW) in 2003 and updated in 2008, and the MPO’s 2009 Regional Bicycle and Pedestrian Study.

The MCSP implements the guiding principles of *Mobility 2030* by mapping the vision for Nashville’s major and collector streets and ensuring that this vision is fully integrated with the city’s land use, mass transit, and bicycle and pedestrian planning efforts. The MCSP aims to increase the quantity of streets (new streets and selective widening of existing ones) and the quality of streets (design) in Nashville, meeting the needs of the wide variety of users, including vehicles, transit, bicyclists and pedestrians, in a manner that respects the context and users of the street.

The MCSP contains guidance for two related components of the street network: character and function. The two approaches used to provide guidance for street character are called “Context Sensitive Solutions” (CSS) and “Complete Streets.” These character guidelines apply to the planning, construction and redevelopment of streets. Street function is defined by the degree of mobility, including the number of travel lanes needed during the period covered by the MCSP (20 years); the degree of land access the street provides, as well as its role in the larger network of streets. Major and collector streets are two separate functional classifications of streets that form an interrelated network, which is why they are presented together in this document.

In addition to the detailed analysis of all the major streets within Davidson County, the MCSP also provides basic information on right-of-way widths for local streets.
Context Sensitive Solutions

The Federal Highway Administration defines Context Sensitive Solutions (CSS) as a collaborative, interdisciplinary approach involving all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. Where prior versions of the MCSP have addressed “context” in terms of only rural or urban and focused solely on functional classification, this update of the MCSP introduces the idea of CSS to begin to create new streets and improve existing streets to be more responsive to their context, potential future users, and development changes. CSS is described in greater detail in Chapter 2.

Complete Streets

This update of the MCSP also reflects Metro’s commitment to utilizing a “Complete Streets” approach to street design. Complete Streets is an initiative by which cities, states, and other jurisdictions adopt policies to ensure future roadway projects will attempt to accommodate multiple users - pedestrians, bicyclists, motorists, transit riders and drivers of motor vehicles, and people of all ages and abilities, including children, older adults, and people with disabilities.

This MCSP advances the concept of Complete Streets by developing a thoroughfare system that provides for safe and effective access for all users while addressing streetscape design in context with the existing or envisioned character of the community. This new philosophy in design of transportation corridors has emerged in response to a changing culture and demographics that are demanding more transportation choices. The emphasis on active lifestyles, energy conservation, and the importance of accommodating users of all ages and abilities illustrates that a street can no longer be designed just for the automobile.

Complete Street design should be understood as a process, not a specific product. For that reason, not all “Complete Streets” will look the same. Complete Street design is both an art and a science. As such, good design standards balance engineering judgment and user needs within the context of the street. Roadway design must rely on the design professional’s knowledge of elements such as travel speeds, volumes, horizontal and vertical alignments and sight lines. User needs also influence the design of the Complete Street. Many of the facilities contained within the right-of-way are uniquely associated with motorists, pedestrians, transit riders and cyclists of varying ages and abilities. Character, or the physical context in which the street resides, is another factor considered in Complete Street design. Character influences the form and function of the roadway and its associated streetscape all of which are designed to complement and enhance the surrounding character.

CSS and Complete Streets approaches support the development of healthy and sustainable communities in keeping with local and national policies and initiatives. A national example is the Centers for Disease Control and Prevention’s Healthy Community Design Initiative. This initiative promotes the integration of evidence-based health strategies into community planning, transportation, and land use decisions. Providing opportunities for people to incorporate physical activity into their daily lives is an example of one of these strategies and can be accomplished by facilitating activities such as walking to transit, biking to work, or walking to nearby shopping destinations. A transportation system that allows the healthy choice to be the easy choice will contribute to healthier life styles within the community.

Locally, Mayor Karl Dean’s Complete Streets Executive Order and “Together Making Nashville Green” initiative inform the direction of this MCSP. The Complete Streets Executive Order, issued on October 6, 2010, directs Metro Departments to “Give full consideration to the accommodation of the transportation needs of all users, regardless of age or ability...” “Together Making Nashville Green” involves citywide efforts to advance environmental sustainability and community health throughout Nashville. CSS and Complete Streets further this initiative by supporting active transportation choices and also by complementing a compact and sustainable urban form that emphasizes investment in the central city where infrastructure is in place and where active transportation choices are relatively easy and convenient to make as part of day-to-day life.
The Need to Update the Major and Collector Street Plan

The most recent Major Street Plan and Collector Street Plan were separate documents that were last comprehensively updated in 1992, with minor amendments since then. As an element of the General Plan, the MCSP should be updated every seven to ten years to reflect change that has occurred and to respond to future planned growth, development and preservation.

Since 1996, Nashville has added 100,000 people, 40,000 housing units and 55,000 jobs. Significant growth is expected to continue according to U.S. Census Bureau figures. By 2030, Nashville's population is projected to grow 20 percent by 118,000-126,000 people to a county population of 713,000-752,000 people, with 48 percent job growth to over 800,000 jobs according to the Nashville Area MPO's 2030 Long Range Transportation Plan.

These and many other changes in the growth, development, and preservation patterns of Nashville are addressed in The Guiding Principles of Mobility 2030. Mobility 2030's guiding principles respond to several changes in Nashville including:

1. **Regional Growth Patterns** – In the 1990s, an average of one acre of land was being developed for every two persons of population growth in Middle Tennessee. Mobility 2030 recommends more efficient use of land and growth that is contiguous to existing urban areas.

2. **Travel Patterns** – Work trips have declined from 33 percent of all trips in 1969 to less than 17.5 percent today, meaning travel options are needed for all types of trips, not just employment-related trips. Mobility 2030 recommends multi-modal transportation options to serve the greater demand for transportation throughout the day and week rather than just focusing on peak-hour, work-based trips.

3. **Demographics** – Nashville's 55-and-older population is projected to grow twice as fast as the general population. Mobility 2030 recommends multi-modal transportation to increase travel options, street connectivity to reduce travel distances, and a greater mix of land uses in closer proximity to one another to minimize trip lengths.

4. **Freight Transportation** – Nashville is one of the top ten U.S. metropolitan regions for truck traffic volumes and expects to accommodate greater freight traffic in the future. Mobility 2030 recommends strategies such as access management and street connectivity to preserve and enhance the capacity of Nashville's surface street and interstate highway network.

5. **Transportation Funding** – Federal and state transportation funds are generally limited or declining. Mobility 2030 recommends transportation strategies that help prioritize transportation investments and make more efficient use of existing streets, reallocating space within them for vehicle lanes, transit lanes, bike lanes, sidewalks and landscaping.
How the Major and Collector Street Plan Was Updated

The update of the MCSP involved the following steps:

1. Review of the plans referenced below,
2. Analysis of the existing conditions of all the Major and Collector streets in the County, review of local transportation plans, and assessment of the role of each street in light of Mobility 2030's guiding principles,
3. Proposal of an Environment based upon the transect category, Street Context, and Functional Design Type for each applicable street in the county,
4. Subjecting these proposals to the Nashville Area MPO’s regional travel demand model to check the impact of the proposals on the overall street network,
5. Input and feedback from other Metro and State of Tennessee Agencies, and
6. Input from the public at organized Community Meetings and discussion of issues with planning Department staff.

Plans Reviewed

A comprehensive review of the following local planning documents influenced the creation of the MCSP.

1. Community Plans Major and Collector Street Plan (MCSP) - This plan includes recommendations for improvements to existing streets and the creation of new streets. It is created through the Community Planning process, led by Metro Planning staff and community members in the fourteen planning communities in Nashville. This plan has historically reflected community objectives, but has often downgraded or removed connections or collectors at the request of Council Members, community members or developers that may have been legitimately warranted for transportation network connectivity.

   Because the MCSP is informed by the Community Plan Updates, the MCSP is sometimes amended following a community planning process to reflect the specific changes applicable to that community.

   2. Metropolitan Planning Organization (MPO) Network - Created by the regional transportation planning agency, the Nashville Area MPO, the network is a reflection of all planned Regional Transportation Plan (RTP) projects for travel demand modeling purposes.

3. Strategic Plan for Sidewalks and Bikeways - Adopted by the Metro Planning Commission in 2003 and updated in July, 2008, this plan addresses all aspects of pedestrian and bicycle planning, and specifically outlines the street that need bicycle facilities and what type of facility is warranted.

4. Nashville Strategic Transit Master Plan - Adopted by the Nashville Metro Transit Authority in 2009, this plan sets forth guiding principles and policies for improving public transportation in Nashville, as well as describes actions and projects for the future.
5. **2011 Northeast Corridor Mobility Study** - Initiated by the Nashville Area MPO, this study develops a regional transportation investment strategy for the 30-mile corridor between downtown Nashville and Gallatin, TN.

6. **2009 Northwest Corridor Conceptual Feasibility Study** - Initial feasibility study to look at the corridor between the cities of Clarksville and Nashville to determine if commuter rail is feasible in this corridor, determine the most likely alignment, develop a preliminary capital cost estimate, and a potential operating schedule and budget.

7. **2007 Southeast Corridor Alternatives Analysis** - The Southeast Corridor High-Performance Transit Alternatives Study looked at potential transit systems that could be built in the corridor between the cities of Nashville and Murfreesboro. The study considered several high performance transit alternatives and compared the cost and benefits of those alternatives to determine a transit solution that includes both short-term and long-term recommendations. The Locally Preferred Alternative selected was a combination of phased bus service enhancements, including development of express bus and skip stop bus services on I-24 and Murfreesboro Road (US 41/70S), and extended local bus service on Murfreesboro.

8. **The Code of the Metropolitan Government of Nashville and Davidson County, Tennessee** – Including Title 12, Vehicles and Traffic; Title 13, Streets, Sidewalks, and Public Places; and Title 17, Zoning.


10. **The Guiding Principles of Mobility 2030** – Adopted by the Metro Planning Commission on September 27, 2007, Mobility 2030 sets Guiding Principles for future transportation decisions, which are to be implemented through the MCSP.

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Music Row - 17th Avenue South is part of a one-way pair that serves a District Office Concentration with Context Sensitive features that include bike lanes and on-street parking.
**Users of the Major and Collector Street Plan**

In addition to this document, the MCSP also includes a map and electronic database of every Major and Collector street in Nashville. The categorization of the street is labeled in the map and defined in this document through a series of tables and diagrams that explain how each street should be designed (See Chapters 2 and 3). The plan is intended to be used by the public and private sectors in planning, designing, budgeting and constructing new streets and making improvements to existing streets.

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**Public Investment and Development**

Metro Government, primarily the Planning and Public Works Departments, will use the MCSP:

1) to assess proposed street improvements and new streets to be built through private sector development (through rezoning or subdivision) as well as with private sector redevelopment where additional right of way or reallocation of existing right of way may be required;

2) for proposing street improvements and new streets as part of the land development process when Metro government is acting as a public sector developer; and,

3) for proposing street improvements and new streets as part of the local and regional transportation planning and budgeting processes.

In making these decisions, Metro staff will make a determination of whether a Major or Collector street is a constrained or unconstrained facility in terms of having substantial right-of-way limitations (a “constrained” facility) and will take that status into account when assessing proposed street improvements. Constrained facilities will be less likely to gain the standard amount of right-of-way, thus requiring thoughtful consideration of how to use the constrained right-of-way to provide for all modes of transportation.

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**Private Investment and Development**

The private sector will use the MCSP when proposing new development to determine if any major or collector streets are to be provided or upgraded in the proposed development area and what the street cross section should look like. The private sector will then design the new street or improve the existing street accordingly.

The private sector will also use the MCSP when proposing redevelopment to determine if any additional right-of-way and/or facilities need to be provided to meet the future vision for the street.

In both cases, Metro government will review proposed new streets and improvements to existing streets against the guidelines in the MCSP.

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*Magnolia Boulevard is a classic urban boulevard with a vegetated median, bike lanes, and areas of on-street parking that serves a variety of urban areas ranging from Major Institutional District to Urban Neighborhoods, Corridors, and Centers.*
Chapter 2
Using the Major and Collector Street Plan
Context Sensitive Solutions and Complete Streets for Nashville

Past iterations of the Major and Collector Street Plan (MCSP) have addressed Nashville’s planning for major streets in terms of functional classification, which is a process where streets are grouped into classes according to the type of vehicular service they are intended to provide, channeling traffic through a network of smaller and larger streets in a logical and efficient manner. Consideration of the overall network and its efficiency is important, but a model based solely on functional classification tends to lack guidance on developing the character of streets and on creating streets that serve all modes of transportation.

This earlier approach to street design overlooks the fact that streets are the most prevalent public spaces in the community and, as such, merit attention to their character as well as their vehicular function. Across the country, cities and states are utilizing new models for considering the character of prominent streets in light of the street’s context as well as models for providing real transportation choice. Two new models called “Context Sensitive Solutions” (CSS) and “Complete Streets” inform this update of the MCSP.

Moving from Conventional Street Design to Context Sensitive Solutions and Complete Streets

The conventional development of a street system has two basic levels of planning and design. The first is network design, which addresses the layout, spacing and general size of major streets. The second is street design, which covers the geometric design of streets – the responsibility of Metro Public Works. What is generally lacking in this two-tiered approach is guidance on the features of the street that vary by context. The updated MCSP provides this guidance. This chapter addresses two of the key aspects of street design – integrating the street with the character of development that surrounds it while meeting the needs of all likely users.

Did You Know?

Nashville currently has several corridors where a Context Sensitive Solution (CSS) approach was applied. They include:

- Demonbreun Street
Downtown Nashville

- Deaderick Street
Downtown Nashville

- Shelby Avenue
East Nashville

- Korean Veterans Boulevard
Downtown Nashville

- Church Street
Downtown Nashville

Deaderick Street and Church Street complement and support the urban form of the downtown environment with appropriate scale and pedestrian sensitive design.
The Context Sensitive Solutions Approach

A street’s “character” refers to the different elements included in a street (sidewalks versus multi-use paths, bike lanes versus bike routes, curb and gutter versus swale, etc.) and how they are designed to complement the existing or proposed context of the area through which they are passing. The determination of street character has not typically taken into account the adjacent land use and context. Conventional street planning typically only allowed two levels of sensitivity to the surrounding land use and context – streets were either rural or urban – resulting in street designs with limited relation to their surroundings.

Context Sensitive Solutions (CSS) is a practical approach to transportation decision-making and design that takes into consideration the communities and lands through which streets, roads, and highways pass – the context. The CSS approach can be thought of as evolving from the National Environmental Policy Act (NEPA) of 1969, which established the Environmental Impact Statement (EIS) process for judging large-scale infrastructure projects. The EIS process was among the first to consider the impact of infrastructure projects – including road construction – on the surrounding community.

Most recently, two prominent and influential professional organizations representing urban planning professionals and transportation engineers have issued the 2010 document *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*. The document was issued by the Institute of Transportation Engineers (ITE) and the Congress for the New Urbanism (CNU). *Designing Walkable Urban Thoroughfares* applies the CSS approach and principles to urban street design. It has been designated an ITE Recommended Practice, formally adopted by the ITE after a thorough development and review process.

CSS has the following attributes:

- CSS addresses transportation needs in a financially feasible manner by matching the street to the setting that ensures safety for all users of an end-product;

- CSS involves stakeholders in the design process, balancing various stakeholders’ needs to produce a solution that is an asset of lasting value to a community. In the case of CSS in the MCSP, most of the community’s involvement took place during the community plan update. These ideas were then incorporated into the MCSP;

- CSS allows flexibility in design guidelines, particularly in constrained conditions;

- CSS designs a transportation system and individual roads that serve multiple users regardless of travel mode; and

- CSS incorporates aesthetics as an integral part of good design.
Relationship between Conventional Street Planning and CSS

The main difference between conventional street planning and CSS street planning is in the flexibility provided by CSS to create a new street (or redesign an existing street) that meets the needs of its context – whether it is a rural, suburban, urban or Downtown setting.

The MCSP incorporates CSS thinking by following the Community Transect, which is a system for categorizing, understanding, and designing the various levels of development within a region, from the most rural to the most urban. The Community Transect is the basis for Metro’s land use planning system. The Transect recognizes the full spectrum of development in a region while CSS provides variation in street character to complement changes in the context.

As an example, Table 1 shows the limited context designations in the conventional street planning model (which only recognizes rural or urban settings) as compared to the additional, tailored street designations available under a CSS approach. Table 1 also shows what criteria are used to design streets utilizing the conventional model versus through a CSS approach. The CSS approach weighs more criteria as it links community context and street design to produce streets that serve a broader array of community needs.

<table>
<thead>
<tr>
<th>Street design criteria primarily based on:</th>
<th>Street design criteria primarily based on:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Level of Service</td>
<td>Context/Adjacent Land Use</td>
</tr>
<tr>
<td>Vehicle Design Speed</td>
<td>Adopted Community Objectives</td>
</tr>
<tr>
<td>Vehicle Travel Demand</td>
<td>Multiple Travel Modes and Users Demand</td>
</tr>
<tr>
<td>Functional Class</td>
<td>Functional Class</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conventional Street Design</th>
<th>CSS Street Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Context Designations:</td>
<td>Possible Context Designations:</td>
</tr>
<tr>
<td>Rural</td>
<td>Rural</td>
</tr>
<tr>
<td>Urban</td>
<td>Residential (i.e. Whites Creek Pk., Joelton)</td>
</tr>
<tr>
<td></td>
<td>Mixed-Use (ex. Ashland City Hwy &amp; Old Hickory Blvd.)</td>
</tr>
<tr>
<td>Suburban</td>
<td>Residential (ex. Harding Pl. between I-65 and Nolensville Pk.)</td>
</tr>
<tr>
<td></td>
<td>Mixed-Use (ex. Old Hickory Blvd. &amp; Edmondson Pk.)</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td>Mixed-Use (ex. Woodland St. between 5th and 11th St.)</td>
</tr>
<tr>
<td></td>
<td>Residential (ex. West End Ave. between I-440 and St. Thomas Hospital)</td>
</tr>
<tr>
<td></td>
<td>Center (ex. Rivergate area streets)</td>
</tr>
<tr>
<td></td>
<td>Downtown (ex. James Robertson Pkwy.)</td>
</tr>
</tbody>
</table>

Table 1: Conventional street design factors compared with CSS street design factors.

The Complete Streets Approach

The Context Sensitive Solutions (CSS) approach and the Complete Streets approach work hand-in-glove in the MCSP. The Complete Streets approach requires that the needs of all users be considered on each street. While it may not be necessary or viable to provide facilities for all users on every street, the Complete Streets approach facilitates the conversation about multimodal transportation. The combined approach asks designers to think about each segment of a street, what its context is, and what its resulting needs are for multi-modal options. For example, consider an Arterial-Boulevard in a rural setting. Are sidewalks with curb and gutter appropriate in a rural setting? Likely they are not, but there may still be community members and visitors that want to travel by bike or on foot. Therefore, a multi-use path on one side of the street may be the best solution to provide transportation choice in a rural setting.

The decision of what streets or areas will receive sidewalks, bikeways, greenways and other multi-use paths are determined by the Strategic Plan for Sidewalks and Bikeways and the Master Plan for Parks and Greenways. The design of these elements and how they are incorporated into the city’s streets are guided by this document.
The Three Elements of Each Street Segment

This update of the MCSP carefully considered the previous transportation plans for Nashville. During the update process, however, it was determined that to meet the goals of Mobility 2030, a greater emphasis should be placed on designing streets that serve multiple users and that reflect the character of the neighborhoods and centers through which they pass. Therefore, this update of the MCSP categorizes each street segment in a manner that provides greater guidance as to the purpose and goals of each street segment.

The three defining elements of each street segment include Environment, Street Context, and Functional Design Type. In some cases there is a fourth element, that represents the Multimodal and/or Scenic Overlay.

Every Major and Collector street is identified with a specific label string comprised of the three elements appropriate for that street segment. An overview of these elements is provided below, with more detailed explanations of each element in the following pages.

T2 - R - CA - (O)

Environment
The Transect is the central organizing tool for Nashville’s land use planning and policies. The Transect is a tool for categorizing a community’s natural and built environment from rural to Downtown. Just as Nashville has a diversity of development and preservation areas, its streets should reflect the same diversity. Transect Categories indicate an area’s general character and are therefore listed first in defining a street’s character. This designation influences the scale, location and orientation of development in a given area (i.e. T2 Rural ranging to T6 Downtown).

Street Context
The Street Context adds to the understanding of context by defining the predominant existing or intended development pattern flanking a given street section. This designation influences design elements like setbacks and sidewalk widths. The three Street Context designations used in this document are Residential, Mixed Use, and Industrial.

Functional Design Type
The purpose of the Functional Design Type is to classify streets according to the character of service they are intended to provide and to design those streets so that they fit their context and serve multiple users. Each street is labeled, in this document and in mapped from, with one of the three Street Types – Collector-Avenue, Arterial-Boulevard, and Arterial-Parkway. Guidelines are laid out in tables and diagrammed in illustrative cross-sections, both found in Chapter 3.

Multimodal or Scenic Overlay
Multimodal Corridors may be urban (UM) or regional (RM). Multimodal Corridors are anticipated to serve a greater role in providing local and regional transit than other corridors with transit. Accommodating transit and support for bike/pedestrian access is critical. Streets designated as Scenic connect areas of scenic and cultural significance and call for enhancement or preservation of existing natural areas on private property just outside the right-of-way. The Metro Zoning Code also prohibits new billboard signage on Scenic roads.
Environment

(T2-L-L#)

The first defining element for each street segment is its Environment based upon the Transect, which is a combination of a letter and a number. The Transect is a system for categorizing, understanding and guiding the various development patterns of a region, from the most rural to the most urban environments. The Transect calls for all elements of the natural and built environment to be consistent with the character of the Transect Category within which they are located.

The Transect is the central organizing tool for future growth and preservation planning in Nashville and Davidson County. The Nashville Transect consists of seven categories of natural and built environments:

- T1 Natural
- T2 Rural
- T3 Suburban
- T4 Urban
- T5 Center
- T6 Downtown
- D District

Determining the Transect Category for each area in Nashville is the first step in creating Community Plans. Then Community Character Policies – Nashville’s land use policies – are applied to an area based on its Transect Category. Community Character Policies will be used in all Community Plans in the County to guide future growth, development and preservation. In working with the community, Planning staff determines which areas of a community are considered to be T1 Natural, T2 Rural, T3 Suburban, T4 Urban, T5 Centers, T6 Downtown, and D Districts. The Context Sensitive Solutions approach calls for stakeholder involvement and the Community Plan Update Process is one way that involvement is achieved. The results of the Community Plan Updates are folded into this document. Likewise, when Community plans are updated in the future, those updates may reveal recommendations and amendments that need to be made to the street classifications in the MCSP.

The MCSP includes six Transect categories; it does not include T1 Natural areas. T1 Natural areas have roads, but they are typically local roads which are not addressed by the MCSP.

While different Transect categories can sit side-by-side, it is crucial that within each Transect category, each element of development should be harmonious within that category. Just as a curb, gutter and sidewalk would look out of place in a rural setting, similarly, having rural spacing and setbacks for housing in urban neighborhoods would be inappropriate.
Transect Category Descriptions

**T2 Rural Transect** areas have very low density residential and agricultural development. T2 Rural Transect areas are characterized by a sparse street network of narrow, rural roads with shoulder and ditch. Buildings in the T2 Rural Transect area are often located and oriented on the land to reflect the natural features of the land, and not a standardized streetscape. Buildings may have very deep setbacks and wide side yards.

**T3 Suburban Transect** areas have a variety of uses, including residential, civic and public benefit, and mixed uses, that are generally separated from one another, with residential as the predominant use. Building patterns vary, but T3 Suburban Transect residential areas are generally characterized by moderate to deep setbacks and side yards, curvilinear streets, and informal landscaping. Residential building types include single- and two-family structures as well as multi-family structures.

**T4 Urban Transect** areas also have a mixture of uses – residential, civic and public benefit, and mixed use – but these are more likely to be found in closer proximity. Mixed use and commercial buildings are characterized by shallow setbacks where buildings may be built to the back edge of sidewalks. Residential buildings generally have shallow setbacks and spacing. Streets are linear with a higher level of connectivity, and landscaping is more formal with street trees and other formal plantings. T4 Urban Transect areas generally contain a greater mixture of housing as well. Single- and two-family homes may be located in close proximity to multi-family, and ideally building types are mixed creating a cohesive development pattern.

**T5 Center Transect** areas include Nashville’s regional malls and large concentrated areas of mixed use development. T5 Centers are unique in that they serve either the entire county or multiple neighborhoods and communities. T5 Centers are areas where residents and visitors may live, work, and recreate and thus are intended to be high density and intensity mixed use, commercial, and residential areas.

The **T6 Downtown Transect** area covers the east and west bank of the Cumberland River bound by the Inner Loop of interstates and Jefferson Street. Downtown neighborhoods vary in scale and mass of development ranging from neighborhoods featuring single-family homes, low-rise townhomes to neighborhoods with skyscrapers. Buildings are placed close to the street with shallow setbacks or built to the edge of sidewalk. Downtown is inherently a mixed use setting, with commercial, office and residential uses often located within the same block or building.
**D District Transect** areas are generally large geographic areas within Davidson County that accommodate a single land use. Within the Nashville Transect there are four types of Districts: Impact, Industrial, Major Institutional (ex. universities or medical complexes), and Office Concentration. Each District has its own built character as well as its own operational and land use needs. Each interacts differently with the surrounding neighborhoods, centers, corridors and open space.

For the MCSP, in the cases of the Major Institutional and Office Concentration Districts, major streets within them are assigned to the most logical adjacent Transect category. The roads in a suburban office park will be labeled T3 Suburban, for example, while the roads adjacent to Vanderbilt University would be labeled T5 Center.

To plan for streets in Industrial and Impact District areas, these areas were researched to identify the specific characteristics for areas that were anticipated to be the most viable over the long term and to generate the greatest amount of large truck traffic. The major streets in these areas need specific treatments such as large turning radii and wide lanes and are also areas where such infrastructure investment is warranted over the long term. The major street segments that were so identified were assigned the “D” Transect designation.
Another defining element for each street segment is the Street Context, depicted as a letter. As noted above, one street can run through several Transect Categories, and even within one Transect Category, a street may pass through both residential and mixed use areas. Therefore, after finding a given street segment’s Transect Category, its intended Street Context is labeled as one of three types in this document and in mapped form. Street Context refers to the predominant development pattern or intended development pattern flanking the street whether residential, mixed use (commercial) or industrial, that influences design elements like building setbacks, sidewalk widths, landscaping and on-street parking.

The following are the principal features that create street context:

- Land use or proposed land use
- Site design and urban form
- Building orientation and setback
- Parking type and orientation
- Block length
- Building design
- Building height and thoroughfare enclosure
- Building width
- Building scale and variety
- Building entries

The Street Context types are listed below:

**R = Residential**
Street segments with this Street Context are flanked primarily with residential development and have a character to fit that development type. Housing types can vary along these streets, ranging from mostly single family-homes to mixed housing with flats and townhouses.

**M = Mixed Use**
Street segments with this Street Context are designed to complement the mixture of uses along them. Development type can vary along these streets from vertical mixed use to commercial, office, or even small areas of light industrial development.

In cases where one side of a street is mostly residential and the other side has mixed uses, the street segment’s Street Context type defaults to Mixed Use. By using a default Mixed Use Street Context designation, public and private entities are required to design streets to accommodate more users as is likely in a mixed use setting.

**I = Industrial**
Street segments with this Street Context are designed to facilitate industrial freight and goods movement in large trucks. Unlike small light industrial areas that might be found within larger areas where a more mixed use pattern predominates, these are larger more intense industrial areas. Development types along these streets include manufacturing, warehousing, distribution, major transportation and utilities, and especially impactful uses such as quarries. The primary concerns in this street context are to accommodate the turning movements, length, width, and weights of large trucks. In most other regards these streets will share the characteristics of Mixed Use street segments.
Functional Design Type

(L#.L-AB)

The third defining element for each street segment is the Functional Design Type. This element combines the functional classification, traditionally focused solely on vehicle level of service, with a new street classification that informs the design and function of the street for multiple users.

The purpose of the Functional Design Type is to classify streets according to the character of service they are intended to provide and to design those streets so that they fit their context and serve multiple users. Each street is labeled, in this document and in mapped form, with one of the three Street Types: Collector-Avenue, Arterial-Boulevard, and Arterial-Parkway, and some streets have a fourth piece of information which is the Multimodal or Scenic Overlay.

The MCSP provides guidelines for the design of the street and its features per its Functional Design Type. These guidelines are laid out in tables and diagrammed in illustrative cross-sections found in Chapter 3. Representative cross-sections are shown in the examples. Standard cross-sections are most appropriate for new construction and undeveloped areas while other cross-sections may be more appropriate for existing/constrained right-of-way in developed areas. Proposed cross sections will be judged on their abilities to meet CSS and Complete Streets goals. Included with the Functional Design Type category label is the planned number of lanes that a street segment is intended to have including continuous, but not intermittent, turn lanes.

CA = Collector-Avenue

Collector-Avenues (CA) are relatively low-speed, low- to medium-volume streets that provide circulation within and between neighborhoods. Collector-Avenues usually serve short trips and are intended for collecting trips from local streets and distributing them to the Arterial-Boulevard network. Collector-Avenues privilege access (the ability to get vehicles in and out of surrounding properties) over mobility (the ability to move cyclists, pedestrians and vehicles through the area). They are present in both residential and mixed-use areas.

AB = Arterial-Boulevard

Arterial-Boulevards are medium- to high-speed, high-volume streets that serve longer trips within and between different communities within the city, with access provided by driveways, alleys or frontage roads.

While the public may generally think of a boulevard as having a median, in Nashville, Arterial-Boulevards range from three-lane, one-way streets Downtown to five-lane suburban streets. They are designated Arterial-Boulevards because of the function they serve – to balance access and mobility equally. The balance of moving people through the area while providing access to property results in a different design for the Arterial-Boulevard than that of the Collector-Avenue.

Major streets in the Gulch in Downtown Nashville are designed to function in this highly urban mixed use community by accommodating all modes of travel and providing design elements that support the surrounding urban form.
**AP= Arterial-Parkway**

Arterial-Parkways are typically at-grade, limited-access roadways which provide mobility for cross-town trips while also acting as linear green spaces with landscaping along them. They serve both residential and mixed-use areas. In prioritizing mobility over access, Arterial-Parkways have a different design that accommodates higher traffic speeds and keeps pedestrians and cyclists further away from vehicles to increase safety.

Other functional classifications that are not addressed by the MCSP are listed below. These do, however, play a role in the transit network and are addressed in the Transit Element of Mobility 2030:

- **E = Expressway**
  
  Expressways are high-speed, high-volume roadways, that may include state highways, which interconnect freeway and arterial streets, with access only at interchanges or signalized intersections.

- **F = Freeway**
  
  Freeways are grade-separated, high-speed, high-volume roadways, including Interstate highways that provide a high degree of mobility, with access only at spaced interchanges.

- **R = Ramp**
  
  Ramps are one-way road sections which provide entering and exiting access onto freeways and expressways.

**Local Streets**

Local streets are a separate category of functional design type. Local street designations do not include the Environment or Street Context elements that are part of the major street designations. Local streets provide access to individual properties. On local streets, speeds and motor vehicle traffic volumes are low, providing a safe and comfortable environment for pedestrians and bicyclists.

**Overlays**

**UM and RM = Multimodal Corridors**

Multimodal Corridors are roadways that provide the highest level of multimodal mobility - with an emphasis on transit service. They serve both residential and mixed-use areas.

Within the MCSP some routes are designated with a Multimodal Overlay due to their importance as transportation corridors within the county. The corridors were chosen based on their designation as major transit corridors within the Metropolitan Transit Authority’s Nashville Strategic Transit Master Plan or in the MPOs Regional Transportation Plan. While transit may be provided on other streets, these corridors are anticipated to serve a greater role in providing local and regional transit. Because these streets are envisioned to play a prominent role in transit, the study of each street, and their design to accommodate transit and support bike/pedestrian access to transit, is critical.

There are two sub-types of Multimodal Corridors: Urban Multimodal Corridors (UM) and Regional Multimodal Corridors (RM). Urban Multimodal Corridors are found within the central city and feature slower operating speeds and more frequent stops than do Regional Multimodal Corridors. In addition, Urban Multimodal Corridors, being within more developed areas of Nashville, operate within more constrained rights-of-way and development patterns. The design of Regional Multimodal Corridors, located where rights-of-way and development patterns present fewer constraints to future transit options, emphasizes providing mass transit within the right-of-way.

**S = Scenic**

Scenic roads, typically Arterial-Boulevards or Arterial-Parkways, are streets and highways which pass through or connect areas of particular scenic significance or provide linkages between areas of historic, natural, cultural or recreational importance. Scenics call for preservation or enhancement of existing natural areas within easements on private property adjacent to the edge of the right-of-way, beyond the minimum functional right-of-way, and planting of new landscaped areas. The Metro Zoning Code prohibits new billboard signage on Scenic roads.
MCSP Mapping

The MCSP map (found online at www.nashville.gov/mpc) indicates each street segment’s designation through the three primary elements – Environment, Street Context, and Functional Design Type. Each street has a unique symbol that is a combination of a color, pattern, and label. The color indicates the Functional Design Type and the pattern indicates whether the street exists or is planned.

The dashed lines on the MCSP map represent the general alignments of proposed streets. The exact alignments of these streets will be determined during the design and engineering phases of their construction in accordance with the MCSP. The solid lines on the MCSP map represent the centerlines of existing major streets. The exact extent of any future changes made to the rights-of-way of these streets will also be determined during the design and engineering phases of their construction in accordance with the MCSP.

The MCSP map is a dynamic GIS (geographic information systems) database containing information about each of the thousands of major street segments in Nashville.

Users of the MCSP may also combine the following GIS layers to arrive at the full relationship of the MCSP with other relevant planning documents. These are available through Nashville’s interactive internet mapping site: www.nashville.gov/mpc:

- Land Use and Community Character Policy
- Bicycle Plan Vision
- Pedestrian Generator Index
- Metro Transit Routes
- Metro Transit Stops
- Sidewalks
- Transit Corridors

The color and pattern scheme for the MCSP map is as follows:

- **Green** - Arterial-Parkway Scenic
- **Yellow** - Planned Arterial-Parkway Scenic
- **Orange** - Arterial-Boulevard Scenic
- **Red** - Arterial-Boulevard
- **Dark Red** - Planned Arterial-Boulevard
- **Blue** - Collector-Avenue
- **Dark Blue** - Planned Collector-Avenue
- **Light Blue** - Planned Multimodal Freeway Corridor
- **Gray** - Freeway or Expressway
- **Gray** - Ramp
- **Dark Gray** - Planned Ramp
- **Beige** - Local Street
Figure 2: Example of Major and Collector Street Plan Map, found online at www.nashville.gov/mpc
Chapter 3
Context Sensitive Solutions
Design Guidelines
Chapter three explores more fully the third element of the street's text string, the Functional Design Type: Collector-Avenue (CA), Arterial-Boulevard (AB), and Arterial-Parkway (AP) in order to provide specific design criteria for each.

The MCSP analyses the function of the street and then provides detailed design guidelines based on the Environment (transect category) and Street Context (mixed use, residential or industrial) in order to achieve the functional and design goals of the street.

The guidelines consist of design recommendations for both the Travelway and Streetside elements of the right-of-way. This chapter details how the right-of-way for each Functional Design Type should be developed.

(Please note that the District Street Context is not denoted separately in the tables, rather it follows the design guidelines for the T3-Suburban Environment and the Mixed Use Street Context with variations for wider turning radii and travel lanes to accommodate large trucks.)

The Standard right-of-way widths, delineating the ultimate right-of-way for each street designation, can be found in Appendix A.

A Standard right-of-way for local streets shall be set at fifty feet for all existing streets.

The fifty foot right-of-way shall be used to determine the appropriate building placement in conjunction with the Metro Zoning Code. Construction of new local streets and the acquisition of right-of-way on existing local streets shall be considered on a case by case basis with regard to environment and context.

### Multimodal Overlay

In addition to the Functional Design Types - that specifically outline the multiple functions of a street and the design needed to implement the objectives, this chapter addresses the need for more in-depth study of corridors with high mass transit potential.

The Multimodal Overlay is a designation that is applied to specific routes that have been identified by the Metro Nashville Transit Authority and the Metropolitan Planning Organization as streets that serve both regional and local populations with a need for enhanced mass transit such as commuter rail, light rail, or bus rapid transit. See page 64 for more specific information on Multimodal corridors.

### Scenic Overlay

The Scenic Overlay designation is applied to streets that pass through or connect areas of particular scenic significance or provide linkages between areas of historic, natural, cultural or recreational importance. Scenic Arterial-Boulevards and Scenic Arterial-Parkways call for preservation or enhancement of existing natural areas within a dedicated landscaped easement outside of the public right-of-way. See the Metro Zoning Code 17.24.070 for specific regulations.

### Lane Designations

The MCSP street designations and subsequent right-of-way widths provide the intended maximum number of travel lanes within each roadway in the city. There can be between two and seven travel lanes designated per roadway section depending on the context of the roadway. If the designation number is an odd number, then the roadway is typically planned for a continuous left turn lane to allow access to adjacent properties, although access management should still be utilized for efficient and safe vehicular, transit, pedestrian and bicycle travel. Even number lane designations do not include a continuous turn lane within the roadway section. At roadway intersections, additional left and right turn lanes may be required when warranted, exceeding the lane number designation and overall right-of-way width identified for the Standard segment of the roadway.
Constrained Roadways

In most cases the ultimate right-of-way that most fully implements the MCSP will be established as the “Standard” right-of-way for a given facility. In some instances a particular street or street segment may be deemed “Constrained” by the Planning Department and Public Works Department Directors following a study by Planning and Public Works staff. The rights-of-way along Constrained Facilities are established as the particular street segment is studied. Such studies may be initiated by either the Directors of the Metro Departments of Planning and Public Works or at the request of a property owner or developer. If a right-of-way is unable to be successfully established through this departmental review process, or the applicant wishes to appeal the decision of the department Directors, an appeal may be made to the Metropolitan Planning Commission.

Constrained Facilities are defined as:

- Those Collector-Avenues and Arterial-Boulevards in T4 Urban, T5 Center, and T6 Downtown environments where the building placement restricts full implementation of the Standard Right-of-Way and redevelopment with deeper setbacks is not expected or desired as determined by the area’s community plan; or,
- Those Collector-Avenues and Arterial-Boulevards in any transect environment where roadways pass through historically significant areas that would be impacted by widening the corridor; or,
- Those Collector-Avenues and Arterial-Boulevards in any transect environment except for T6 Downtown where roadways pass through environmentally sensitive areas that have been identified for preservation, which is the default condition for such areas. Exceptions could be found in situations where a community plan or its component has identified such an environmentally sensitive area as subject to alteration due to a trade-off being made for an important community benefit; or,
- Those Collector-Avenues and Arterial-Boulevards where a determination is made and documented by the Metro Departments of Planning and Public Works that development conditions along the facility in question warrant its classification as a Constrained Facility; or,
- Those Collector-Avenues and Arterial-Boulevards where a determination has been made and documented by the Metro Departments of Planning and Public Works that they are Constrained Facilities through an appeal process to their classification in the MCSP.
**How to Read the Tables**

The guideline tables are organized according to the three elements discussed in Chapter 2: Environment, Street Context, and the Functional Design Type.

Look for the organizing label string to identify the major or collector street. For example, the street segment is designated: T3 Suburban– Residential – Collector-Avenue 2 lanes (T2-R-CA2)

Look for the corresponding table first by going to “Section I: Collector-Avenue” and then looking for the rest of the text string as shown in Figure 3:

---

**Environment:**
The Transect designation explains whether the street segment is part of a Rural, Suburban, Urban, Center, Downtown, or District area.

**Street Context:**
Denotes whether the street segment is part of a Residential or Mixed Use area. Industrial Street Context areas follow standards for Mixed Use.

**Functional Design Type:**
Explains the street’s role in the larger network of streets and assigns design criteria to accomplish functional and design goals. The # represents the planned number of lanes.

---

**Figure 3:** How to Read the Text String Key to the Guidelines Tables for Each Street Type.
Street Element Descriptions

Every street segment includes many different elements that all work together to create streets that are thoughtfully designed to meet the needs of multiple users. The cross sections presented in this document show different possible arrangements for the elements that make up a street. Generally, within the public right-of-way, the elements of the street exist either within the Streetside or the Travelway. The following section offers brief summaries of all the street elements.

**Streetside**

The Streetside accommodates most of the non-vehicular activity of the street including pedestrian travel, business activity, and some stormwater functions. The Streetside is the public space where much of the social activity of the city takes place.

**Travelway**

The Travelway is the portion of the right-of-way between the curbs that accommodates the movement of vehicles including transit and bicycles, as well as on-street parking.
**Streetside Elements**

**Pedestrian Zone**

The pedestrian zone provides for the mobility of people walking to and from their destination, whether their entire trip was as a pedestrian or they were simply walking from their car or from the transit stop. It also serves as an important social space where people interact with one another, window shop and access businesses, have a meal at a café or wait for transit. The pedestrian zone must accommodate the unobstructed movement of people as well as the facilities and space for social functions. Accessibility and safety are primary design considerations as is the transition from the public space of the street to private property. Included within the pedestrian zone are the furnishing zone, the pedestrian travelway, the frontage zone, and transit stops.

**Frontage Zone**

The frontage zone is the area next to the property line. It may front a building, parking area, front yard or undeveloped property. The frontage zone is the ideal location to accommodate dining and display areas for adjacent businesses. These types of private activities must meet the Zoning Code requirements and will require proper permitting.

**Pedestrian Travelway**

The pedestrian travelway is designed to facilitate the unobstructed through movement of pedestrians. Ideally, even the narrowest travelway should accommodate the width of two people walking side by side. Travelway width should vary based on context and the anticipated pedestrian activity of adjacent uses. In areas where pedestrian activity is predicted to be exceptionally high, near stadiums and arenas, convention centers, theaters or other uses that generate high volumes of foot traffic, pedestrian travelway widths should be expanded. In more rural and suburban settings, the pedestrian travelway may consist of a multi-use path (see bike zone for a full description). The multi-use path may or may not be part of the public right-of-way. It can be maintained on private property as part of a pedestrian easement.

**Furnishing Zone**

The furnishing zone accommodates several different functions. Located between the curb and the pedestrian travelway, the furnishing zone provides a buffer between pedestrians and vehicles. In rural settings the furnishing zone may not be present, in suburban and residential contexts the furnishing zone may consist solely of a landscape strip with street trees, while in a more urban mixed use setting, the zone may accommodate seating, newspaper kiosks and bicycle racks in addition to trees in tree-wells. In most contexts, utility poles, fire hydrants, transit platforms and public signage are also accommodated in this zone.

**Streetside Cross Section**
Street Trees and Landscaping

Landscaping provides a buffer between pedestrians and traffic and shields them from the elements, all while providing stormwater and air quality benefits. The best plants and trees for streets are well adapted to the climate, low maintenance and sized properly for the available planting area. Typically, maintenance of landscaped areas within the right-of-way is the responsibility of the adjacent landowner.

Street trees are a great benefit to any street. Proper planning is essential when incorporating trees into the street design. By avoiding conflicts with underground utilities, “limbing” trees in their first few years to achieve proper clearance, and making sure planting strips and tree wells are properly sized and have adequate room for root growth, street trees will have a greater chance of reaching full maturity.

Transit Stops

Mass transit, including buses, provide transportation services to a large portion of the population and are essential to those who cannot afford automobiles, who are unable to drive due to disability or age, or who choose not to drive. This service is typically located on major corridors, and transit stop placement along those corridors must consider many factors including: traffic operations, proximity to large trip generators, accessibility and passenger amenities. Transit stops should be designed as safe and comfortable places to encourage transit use, but they should also be incorporated into the context and function as an urban design amenity for the city.

Stormwater Management

Incorporating stormwater management into the design of streets is beneficial to the community on many levels. The use of green stormwater management practices such as Low Impact Development techniques, including Light Imprint strategies, provide visual stimulation, buffering of automobile traffic, and help infiltrate stormwater thus reducing runoff and flooding, especially in urban areas with high percentages of impervious surfaces. Green stormwater management facilities can be integrated with on-street parking areas as tree bulbs or pervious pavement, included with landscaping and street trees in the pedestrian zone, or designed into medians in the center of the street. Metro Stormwater’s Green Infrastructure Design Manual should be consulted during the design phase of any new street or street retrofit.

Swales are typically used to mitigate stormwater in more rural and suburban environments. Swales may be part of the public right-of-way or dedicated via an easement.
**Travelway Elements**

**Parking Zone**

On-street parking not only helps to meet the parking needs of the adjacent uses, but it also offers comfort for pedestrians by providing a buffer from moving traffic in the street. While in most cases, on-street parking cannot supply all of the parking needs for a commercial area, it provides convenient spaces that increase pedestrian activity and allow for easy loading and unloading when additional parking is located to the rear or side of buildings. Additionally, on-street parking helps to slow street traffic thus making pedestrian crossings safer. Parking lanes should be measured to the face of the curb.

**Bike Zone**

Bicycle travel is an important component in any multimodal street that can be accommodated in variety of ways. Varying street types, cyclist skill level and the availability of off-street bike routes influence the design of bike facilities. Bicycle facilities are required in accordance with recommendations of the *Strategic Plan for Sidewalks and Bikeways*.

**Wide Outside Lanes**

Wide outside lanes are vehicular travel lanes that are wide in order to accommodate the width of an automobile and a cyclist. Wide outside lanes can be a prudent option where a bike route is called for but right-of-way widths are constrained. Sharrows should be included to indicate to motorists that they are sharing the lane with cyclists.

**Bicycle Lanes**

Locating bicycle lanes along major and collector streets is an important part of a Complete Street approach, but not all major and collector streets require a bicycle lane to be a Complete Street. Several factors are taken into consideration to designate a bike lane on a street including:

- Streets with high traffic volume.
- Streets with high target speeds of 30 miles per hour or more.
- Connectivity to existing and/or planned bicycle systems and transit facilities.
- Connectivity to large employment centers and/or popular civic destinations.
- Experience or skill level of cyclist.

Striped bicycle lanes are recommended on certain streets in order to provide cyclists with a safe travelway that is visually separated from automobile traffic.

A standard striped bicycle lane should be 6 feet wide between face of curb and outside of painted stripe. A minimum of 3 feet of this width should be ridable surface located outside of the gutter pan. In the absence of a vertical curb, a four foot minimum bike lane is acceptable. Additionally, when formal parking and bike lanes coexist, the width should be 6 feet. Bike lanes should not be located between parking area and curb. This will create obstacles for cyclist due to opening car doors and conflict at intersections.

**Multi-Use Path**

While cycling on sidewalks is discouraged in urban areas, along Arterial-Parkways and other streets in more rural or suburban settings, a multi-use path that is wide enough to accommodate both pedestrians and cyclists may be appropriate. Motorized traffic is generally excluded along multi-use paths because these facilities are designed for use by pedestrians, bicyclists, skaters, wheelchair users, runners, and other non-motorized users. Typically, a multi-use path, which is a combination of the Bicycle and Pedestrian Zones is separated from the Vehicle Zone by a landscaped area. The location of multi-use paths within street rights-of-way, especially near road intersections, can challenge motorist expectations of bicyclists, so their design and interface with other travel modes should be carefully analyzed. A multi-use path can also be called a shared use trail or greenway.
**Vehicle Zone**

**Travel Lanes**

Travel lanes accommodate movement of vehicular, transit, and bicycle traffic. Lane width is influenced by two distinct goals that must be balanced to create complete streets. The first is to move a particular volume of vehicles through an area safely and efficiently. The second is to create a safe and comfortable pedestrian environment by limiting crossing distances and reducing vehicle speeds. Wide streets create barriers for pedestrians and encourage higher vehicular speeds reducing the level of pedestrian activity that supports economic and community activity.

**Urban Lane:** The American Association of State Highway and Transportation Officials (AASHTO) recommends narrower (10 to 11 feet) travel lanes on lower-speed urban streets, to promote flexibility in constrained right-of-way situations and to accommodate multiple modes of transportation by creating more room within the ROW. The benefits of narrower travel lanes include the creation of a safer pedestrian conditions with shorter crossing distances and slower traffic, the ability to accommodate more modes of transportation in constrained ROWs, and lower construction cost. Wide outside lanes are appropriate on transit corridors to accommodate transit.

**Non-urban Lane:** In non-urban settings with less pedestrian activity, wider (12 foot) vehicle lanes are appropriate. However, when wider lanes are required, consider balancing the total width of the travel way by narrowing turn lanes or medians to maintain the same overall pedestrian crossing distance.

**Medians and Pedestrian Refuges**

Medians are continuous islands separating the opposing directions of traffic. Medians are used for beautification, access management, safety, utilities, and stormwater management. By separating and controlling traffic, medians help reduce vehicle-and-vehicle as well as vehicle-and-bicycle/pedestrian conflicts. Landscaped medians, especially those with canopy trees, can be a unique focal point to a neighborhood, and when properly designed, they can provide efficient stormwater management. Medians can also function as pedestrian refuges. These refuges break up a large crossing by providing a safe place for pedestrians and cyclists to stop while crossing the street. They are especially important on wide thoroughfares and in areas with less mobile pedestrians.

Landscaped medians should take priority over continuous left turn lanes or paved medians where maintenance funding is available. Plant and hardscape materials should be low maintenance including miniature grasses that do not require mowing and/or drought tolerant tree and shrub species.

**Traffic Control Devices**

Metro Nashville Public Works maintains over 2,200 miles of public roadways and rights-of-way and more than 800 signalized intersections. Along with the Tennessee Department of Transportation (TDOT), Public Works installs and maintains traffic control devices including signals, pavements markings, and signs within the Vehicle Zone. The Manual on Uniform Traffic Control Devices defines the standards used by local road managers installing and maintaining traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic. Coordination with Public Works and TDOT while applying the MCSP is essential for the safe and efficient movement of people and supporting community activities.

Public Works also manages the Metro Neighborhood Traffic Management Program, which helps mitigate the impacts of speeding and traffic on residential streets. Public Works will coordinate with residents to evaluate current conditions and discuss the trade-offs of implementing education, enforcement, and engineering strategies that may involve traffic calming techniques and devices to address neighborhood traffic issues.

**Development Zone**

The development zone is the private property that abuts the public right-of-way. While this document does not address any standards specific to the development zone, the character of the development zone affects the design and use of the public street space.
Section I: Collector - Avenue

Collector - Avenue Defined

Collector-Avenues (CA) are relatively low-speed, low to medium volume streets that provide circulation within and between neighborhoods. Collector-Avenues usually serve short trips and are intended for collecting trips from local streets and distributing them to the Arterial-Boulevard network.

Intent

The intent of the Collector-Avenue is to balance the mobility needs of multiple transportation modes, while providing access via driveways, alleys or side streets to businesses and residences. Therefore, while there may be peak-hour congestion, this is considered a legitimate trade-off to attain other community goals such as access and pedestrian/cyclist comfort. As a result, the width of the road is not expanded to accommodate additional capacity or maintain free flowing traffic at all times.

Guidelines

These design guidelines are to be used by the private and public sectors when proposing street improvements and/or new streets. The guidelines are expressed in a series of tables and diagrams for street segments and general guidelines for intersections. Figure CA1 shows the Typical Zones and the purposes served by each.

Collector - Avenue Elements

Tables CA1-CA3 list the design guidelines for Collector-Avenues segments and the design elements within the right-of-way. These tables are followed by a variety of possible cross-sections for Collector-Avenues. Please see page 26 for the explanation of how to read the tables.

Avenue Intersection Guidelines

At the end of this section is a list of guidelines for how to create an appropriate Collector-Avenue intersection as well as intersections of Collector-Avenue and other street types.

Collector-Avenue at a glance

Future complete street function:

- Serves shorter trips, more pedestrian and bicycle oriented trips
- Relatively low speed of vehicles
- Low to medium user volumes
- Collects and distributes trips from local roads to the larger network.
- Balance user mobility and vehicular access to business/residences

Potential Design Remedies:

- Reduce travel lane widths
- Introduce parallel parking
- Introduce sidewalks and trees
- Accommodate bicycles
- Ensure sidewalks are provided
Throughout the tables and the diagrams, street sections are divided into zones with corresponding colors. A description of the zones is found on pages 27-31

**Development Zone**
The basic intent for the Development Zone is that buildings orient toward and have good functional and visual connections to the street. Within the Development Zone, the building setbacks, site design and land uses will vary based on the context.

**Pedestrian Zone**
Collector-Avenues design privileges walking as a travel option. Therefore, the Pedestrian Zone should include unobstructed sidewalks at appropriate widths for adjacent land uses.

**Green Zone**
Landscaping and trees in the Green Zone serve multiple purposes:
- Buffering for pedestrians from weather and automobile traffic
- Green Infrastructure to mitigate stormwater and summer heat/glare
- Underlying support for property values/desirability of real estate

**Parking Zone**
The need for the Parking Zone varies on Collector-Avenues. The benefits of the Parking Zone include traffic calming, buffering between vehicles and pedestrians, and easy “in and out” access to adjacent land uses.

**Bicycle Zone**
The Bicycle Zone is important to encourage cycling and provide additional buffering between drivers and pedestrians. In the chart, look for standards under “Bike Zone.”

**Vehicle Zone**
The Vehicle Zone serves motor vehicles, with a variety of lane configurations, to accommodate higher volumes than local streets. Narrower lanes will help to slow traffic, and provide other modes of transportation additional room within the right-of-way.
<table>
<thead>
<tr>
<th><strong>General Standards</strong></th>
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<tbody>
<tr>
<td><strong>Block Length</strong></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Utilities (location)</strong></td>
<td>Within ROW avoiding conflicts with trees and stormwater infrastructure</td>
<td></td>
</tr>
<tr>
<td><strong>Stormwater Management</strong></td>
<td>Swales or other Low Impact Development or Light Imprint Development strategy</td>
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<thead>
<tr>
<th><strong>Pedestrian Zone</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Frontage Zone</strong></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Pedestrian Travelway (Sidewalk)</strong></td>
<td>1) Recommended 10 ft. multi-use path on one side of street 2) 6 ft. minimum or wider sidewalk appropriate alternative</td>
<td>1) Recommended 10 ft. multi-use path on both sides of street 2) 6 ft. minimum or wider sidewalk appropriate alternative</td>
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<tr>
<th><strong>Green Zone</strong></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Furnishing Zone/Planting Strip</strong></td>
<td>Drainage Swale, 12 ft. standard; 5 ft. minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Street Tree Guidelines</strong></td>
<td>Informal plantings</td>
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<tr>
<td><strong>Transit Stops</strong></td>
<td>Not Typical. Consult the Metropolitan Transit Authority for guidance on Multimodal corridors</td>
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<table>
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<tr>
<th><strong>Parking Zone</strong></th>
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<tr>
<td><strong>On-Street Parallel Parking</strong></td>
<td>Not typical</td>
<td>Unmarked parking is appropriate</td>
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<tr>
<td><strong>Curb Extensions</strong></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Bike Zone:</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(options)</strong></td>
<td>1) Multi-use path 2) Shared lane marking for planned bikeways</td>
<td>1) Multi-use path 2) Wide shoulder to act as bike lane 3) Shared lane marking for planned bikeways</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Vehicle Zone</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shoulder</strong></td>
<td>4 ft. standard; no minimum</td>
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</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td>Non-urban</td>
<td></td>
</tr>
<tr>
<td><strong>Medians/Pedestrian Refuge</strong></td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
**Collector - Avenue Segment Guidelines**

<table>
<thead>
<tr>
<th></th>
<th><strong>T3-R-CA#</strong></th>
<th><strong>T3-M-CA#</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T3 Suburban – Residential – Collector-Avenue #</strong></td>
<td><strong>T3 Suburban – Mixed Use – Collector-Avenue #</strong></td>
<td></td>
</tr>
<tr>
<td><strong>General Standards</strong></td>
<td><strong>Block Length</strong></td>
<td><strong>Recommended less than 1,200’</strong>, except where environmental constraints are present</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td><strong>1) Underground (provided there is no street tree conflict)</strong></td>
<td><strong>2) Alley/service road</strong></td>
</tr>
<tr>
<td></td>
<td><strong>4) Planting strip where present</strong></td>
<td><strong>Stormwater Management</strong></td>
</tr>
<tr>
<td><strong>Pedestrian Zone</strong></td>
<td><strong>Frontage Zone</strong></td>
<td><strong>Recommended 18 inches where buildings are built at the property line. Landscaping should screen parking areas.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Pedestrian Travelway (Sidewalk)</strong></td>
<td><strong>6 ft. standard ; 5 ft. minimum</strong></td>
</tr>
<tr>
<td><strong>Green Zone</strong></td>
<td><strong>Furnishing Zone/Planting Strip</strong></td>
<td><strong>6 ft. standard ; 5 ft. minimum</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Street Tree Guidelines</strong></td>
<td><strong>Canopy trees are preferred in continuous planting areas. Understory trees may be used when limited planter width and conflicts with utilities exist.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Transit Stops</strong></td>
<td><strong>If located along planting strip, paved pad should be provided for passengers.</strong></td>
</tr>
<tr>
<td><strong>Parking Zone</strong></td>
<td><strong>On-Street Parallel Parking</strong></td>
<td><strong>Unmarked parking is typical</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Curb Extensions</strong></td>
<td><strong>Not typical</strong></td>
</tr>
<tr>
<td><strong>Bike Zone</strong></td>
<td><strong>(options)</strong></td>
<td><strong>1) Bike lane, 6 ft. standard; 4 ft. minimum acceptable in the absence of a vertical curb</strong></td>
</tr>
<tr>
<td><strong>Vehicle Zone</strong></td>
<td><strong>Shoulder</strong></td>
<td><strong>Not typical. If swale is present, gravel or paved shoulder is recommended</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Lane Width</strong></td>
<td><strong>Urban typical</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Medians/Pedestrian Refuge</strong></td>
<td><strong>Not typical. When provided, best practices min. width is 6 ft. for pedestrian refuge</strong></td>
</tr>
</tbody>
</table>
## Collector - Avenue Segment Guidelines
### T4, T5, T6

<table>
<thead>
<tr>
<th><strong>General Standards</strong></th>
<th>T4-R-CA#</th>
<th>T4/5/6-M-CA#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T4 Urban – Residential – Collector-Avenue #</strong></td>
<td><strong>T4/T5/T6 – Mixed Use – Collector-Avenue #</strong></td>
<td></td>
</tr>
</tbody>
</table>

### General Standards
- **Block Length**: Recommended 200-600 ft., except where environmental constraints are present
- **Utilities** (in order of preferred location):
  1. Underground (provided there is no street tree conflict)
  2. Alley/service road
  3. Behind sidewalk (where greater setbacks allow)
  4. Planting strip within Green Zone
- **Stormwater Management**: Curb and gutter, coupled with Low Impact Development or Light Imprint Development retrofit/remediation strategies
- **Pedestrian Zone**
  - **Frontage Zone**: Not typical
  - **Pedestrian Travelway (Sidewalk)**: 6 ft. standard; 5 ft. minimum
  - **Green Zone**
  - **Furnishing Zone/Planting Strip**: 6 ft. standard; 5 ft. minimum
- **Street Tree Guidelines**: Canopy trees are preferred in continuous planting areas. Understory trees may be used when limited planter width and conflicts with utilities exist.
- **Transit Stops**: If located along planting strip, paved pad should be provided for passengers.

### Parking Zone
- **On-Street Parallel Parking**: 8 ft. standard
- **Curb Extensions**: Recommended where full-time on-street parking exists
- **Bike Zone**
  - **(options)**: 1) Bike lane, 6 ft. standard; 4 ft. minimum acceptable in the absence of a vertical curb
  - **Shared pavement marking for planned bike route**

### Vehicle Zone
- **Shoulder**: Not typical
- **Lane Width**: Urban
- **Medians/Pedestrian Refuge**: Not typical. When provided, best practices min. width is 6 ft. for pedestrian refuge
Collector - Avenue with Swales and Multi-use Path

Context

- T2 Residential (Non-urban lane width)
- T2 Mixed Use (Non-urban lane width)
- T3 Residential (Non-urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Context

- T2 Mixed Use (Non-urban lane width)
- T3 Residential (Urban lane width)
- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Collector - Avenue with Median and Wide Lanes

Context
- T3 Residential (Urban lane width)
- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Collector - Avenue with On-street Parking and Curb Extensions

Context

- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Collector - Avenue with Parking on One Side and Shared Lanes

Context

- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Thoughtful intersection design is essential to reduce conflicts between all modes of transportation: vehicles, pedestrians, and cyclists. Good intersection design allows all users the opportunity to continue their trip in a safe and orderly manner.

**Medians**

Medians are not typical at smaller intersections, those generally involving a Collector-Avenue and other two lane roads. Medians are recommended as pavement widths increase and crossing distances for pedestrians are lengthened, as medians provide a refuge for pedestrians mid-crossing.

**Left-turn Lanes**

Left turn lanes are typical for Collector-Avenues with three lanes or more.

**Right-turn Lanes**

Right turn lanes are not typical on Collector-Avenues in areas of high connectivity in the surrounding street network. When right-turn lanes are necessary, a pedestrian island should be considered to increase pedestrian safety.

Islands should be a minimum of 50 square feet and landscaped to provide a buffer between vehicles and pedestrians.

**Curb Extensions**

Collector-Avenue intersections transitioning from on-street parking and those with large shoulders should include curb extensions. Curb extensions help reduce the intersection crossing distance for pedestrians and clearly define the limits of on-street parking.

**Curb Radii**

It is recommended to keep curb radii as small as possible. Curb radii should be measured by effective radius of turning movements, not actual curb radius.

**Crosswalks**

Crosswalks are recommended at all intersections on all legs, unless pedestrian crossings would decrease safety. Crosswalks should be located outside of the curb radius where possible, while remaining as close to the intersection as possible.
Arterial-Boulevards Defined

Arterial-Boulevards (AB) usually serve longer trips with medium to high volume and are intended to collect trips from Collector-Avenues and distribute them to the larger network.

Intent

Arterial-Boulevards prioritize the mobility needs of multiple transportation modes over business and residence access. Access management occurs through establishing appropriate block length, presence of medians, and the spacing and consolidation of access points to individual developments. Arterial-Boulevards include landscaping and facilities for multiple modes of transportation, such as sidewalks, bikeways, transit stops, and in some cases transit lines. Improvements may include some or all of the following, depending on available right-of-way: vegetated medians, wide sidewalks, street trees and urban design elements that create a comfortable, inviting place to walk or bike.

Context

While the public may generally think of a boulevard as having a vegetated median, in Nashville Arterial-Boulevards are designated as such because of the function they serve – to balance access to surrounding land uses and mobility. For example, Rosa L. Parks Boulevard is an Arterial-Boulevard with a vegetated median near Werthan Mills and becomes a five-lane Arterial-Boulevard with a center turn-lane at the Nashville Farmer’s Market.

Guidelines

Design guidelines are to be used by the private and public sectors when proposing street improvements and/or new streets. The guidelines are expressed in a series of tables and diagrams for street segments and general guidelines for intersections. Figure AB1 shows the Typical Zones and the purposes served by each.

Arterial-Boulevard Elements

Tables AB1-AB4 list the design guidelines for Arterial-Boulevard segments and the design elements within the right-of-way. This table is followed by a variety of possible cross-sections for Arterial-Boulevards. Please see page 26 for the explanation of how to read the tables.

Arterial-Boulevard Intersection Guidelines

At the end of this section is a list of guidelines for how to create an appropriate Arterial-Boulevard intersection as well as intersections of Arterial-Boulevards with other street types.

Arterial - Boulevard at a Glance

Future Complete Street Function:
- Serve longer vehicular and bicycle trips
- Medium to high user volumes due to higher intensity land uses
- Collects trips from Collector-Avenues and distribute them to the larger network
- Prioritize user mobility over access

Potential Design Remedies:
- Reduce travel lane widths
- Introduce parallel parking
- Introduce sidewalks, planting strips, and street trees
- Introduce medians
- Accommodate bicycles
- Introduce transit elements – local bus service
## Arterial - Boulevard: Typical Zones

Throughout the tables and the diagrams, street sections are divided into zones with corresponding colors. A description of the zones is found on pages 27-31.

### Development Zone
The basic intent for the Development Zone is that buildings orient toward and have good functional and visual connections to the street. Within the Development Zone, the building setbacks, site design and land uses will vary based on the context.

### Pedestrian Zone
Pedestrian travel should be a prominent option on Arterial - Boulevards. This zone should include unobstructed sidewalks at appropriate widths for adjacent and surrounding land uses.

### Green Zone
Landscaping and trees in the Green Zone serve multiple purposes:
- Buffering for pedestrians from weather and automobile traffic
- Green Infrastructure to mitigate stormwater and summer heat/glare
- Underlying support for property values/desirability of real estate

### Parking Zone
The need for the Parking Zone varies on Arterial - Boulevards. The benefits of the Parking Zone include traffic calming, buffering between vehicles and pedestrians, and easy “in and out” access to adjacent land uses.

### Bicycle Zone
Arterial - Boulevards typically have higher traffic speeds and volumes so bicyclists are less likely to feel comfortable in mixed traffic. The Bicycle Zone is important to encourage cycling and provide additional buffering between drivers and pedestrians.

### Vehicle Zone
The Vehicle Zone serves motor vehicles, with a variety of lane configurations, to accommodate higher volumes than Collector - Avenues. Narrow lanes should be considered to slow traffic and provide for the expansion of other zones within the right-of-way.
### Arterial - Boulevard Segment Guidelines

<table>
<thead>
<tr>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2 Rural – Residential – Arterial-Boulevard#</td>
<td>T2 Rural – Mixed Use – Arterial-Boulevard#</td>
</tr>
</tbody>
</table>

#### General Standards

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Length</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Utilities (location)</td>
<td>Within ROW avoiding conflicts with trees and stormwater infrastructure</td>
<td></td>
</tr>
<tr>
<td>Stormwater Management</td>
<td>Swales or other Low Impact Development strategy</td>
<td></td>
</tr>
</tbody>
</table>

#### Pedestrian Zone

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frontage Zone</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Pedestrian Travelway (Sidewalk)</td>
<td>1) Recommended 10 ft. multi-use path on one side of the street 2) Shoulder may be used to accommodate pedestrians in constrained situations 3) 6 ft. minimum or wider sidewalk appropriate alternative</td>
<td>1) Recommended 10 ft. multi-use path on both sides of the street 2) 6 ft. minimum or wider sidewalk appropriate alternative</td>
</tr>
</tbody>
</table>

#### Green Zone

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnishing Zone</td>
<td>Drainage Swale, 12 ft. standard ; 5 ft. minimum</td>
<td></td>
</tr>
<tr>
<td>Street Tree Guidelines</td>
<td>Informal plantings</td>
<td></td>
</tr>
<tr>
<td>Transit Stops</td>
<td>Not typical. Consult the Metropolitan Transit Authority for guidance on Multimodal corridors</td>
<td></td>
</tr>
</tbody>
</table>

#### Parking Zone

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Street Parallel Parking</td>
<td>Not typical</td>
<td>Unmarked parking is appropriate</td>
</tr>
<tr>
<td>Curb Extensions</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

#### Bike Zone

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>(options)</td>
<td>1) Multi-use path 2) Wide shoulder to act as bike lane 3) Shared lane marking for planned bikeways</td>
<td></td>
</tr>
</tbody>
</table>

#### Vehicle Zone

<table>
<thead>
<tr>
<th></th>
<th>T2-R-AB#</th>
<th>T2-M-AB#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder</td>
<td>8 ft. standard; no minimum</td>
<td></td>
</tr>
<tr>
<td>Lane Width</td>
<td>Non-Urban</td>
<td></td>
</tr>
<tr>
<td>Medians/Pedestrian Refuge</td>
<td>Recommended.</td>
<td></td>
</tr>
</tbody>
</table>
# Arterial - Boulevard Segment Guidelines

## T3 Suburban – Residential – Arterial-Boulevard

### General Standards

<table>
<thead>
<tr>
<th>Block Length</th>
<th>T3 R-AB#: Recommended less than 1,200 ft., except where environmental constraints are present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>1) Underground (provided there is no street tree conflict) 2) Alley/service road 3) Behind sidewalk where greater setbacks allow 4) Planting strip</td>
</tr>
<tr>
<td>Stormwater Management</td>
<td>Curb and gutter, coupled with Low Impact Development strategy</td>
</tr>
</tbody>
</table>

### Pedestrian Zone

<table>
<thead>
<tr>
<th>Frontage Zone</th>
<th>Not typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian Travelway (Sidewalk)</td>
<td>6 ft. standard; 5 ft. minimum</td>
</tr>
</tbody>
</table>

### Green Zone

<table>
<thead>
<tr>
<th>Furnishing Zone</th>
<th>8 ft. standard; 5 ft. minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Tree Guidelines</td>
<td>Canopy trees are preferred in continuous planting areas. Understory trees may be used where limited planter width and conflicts with utilities exist.</td>
</tr>
<tr>
<td>Transit Stops</td>
<td>If located along planting strip, paved pad should be provided for passengers</td>
</tr>
</tbody>
</table>

### Parking Zone

<table>
<thead>
<tr>
<th>On-Street Parallel Parking</th>
<th>Not typical. Parking is on-site via driveways or parking lots. 8 ft. standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb Extensions</td>
<td>Not typical</td>
</tr>
</tbody>
</table>

### Bike Zone

<table>
<thead>
<tr>
<th>(options)</th>
<th>1) Bike lane, 6 ft. standard; 4 ft. minimum acceptable in the absence of a vertical curb 2) Shared pavement marking for planned bike route</th>
</tr>
</thead>
</table>

### Vehicle Zone

<table>
<thead>
<tr>
<th>Shoulder</th>
<th>Not typical. If swale is present, gravel or paved shoulder is recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Width</td>
<td>Urban typical</td>
</tr>
<tr>
<td>Medians/Pedestrian Refuge</td>
<td>Recommended 16 ft., best practices minimum width is 6 ft. for pedestrian refuge only</td>
</tr>
</tbody>
</table>
### T4-R-AB#

T4 Urban – Residential – Arterial-Boulevard#

<table>
<thead>
<tr>
<th>General Standards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block Length</strong></td>
<td>Recommended 200-600 ft., except where environmental constraints are present</td>
</tr>
</tbody>
</table>
| **Utilities**     | 1) Underground (provided there is no street tree conflict)  
| (in order of preferred location) | 2) Alley/service road  
|                   | 3) Planting strip |
| **Stormwater Management** | Curb and gutter, coupled with Low Impact Development strategies |

<table>
<thead>
<tr>
<th>Pedestrian Zone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frontage Zone</strong></td>
<td>Not typical</td>
</tr>
<tr>
<td><strong>Pedestrian Travelway (Sidewalk)</strong></td>
<td>6 ft. standard; 5 ft. minimum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Green Zone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Furnishing Zone</strong></td>
<td>8 ft. standard; 6 ft. minimum</td>
</tr>
<tr>
<td><strong>Street Tree Guidelines</strong></td>
<td>Canopy trees are preferred in continuous planting areas. Understory trees may be used where limited planter width and conflicts with utilities exist.</td>
</tr>
<tr>
<td><strong>Transit Stops</strong></td>
<td>If located along planting strip, paved pad should be provided for passengers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parking Zone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-Street Parallel Parking</strong></td>
<td>8 ft. standard</td>
</tr>
<tr>
<td><strong>Curb Extensions</strong></td>
<td>Recommended where full-time on-street parking exists</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bike Zone</th>
<th></th>
</tr>
</thead>
</table>
| **(options)** | 1) Bike lane, 6 ft. standard; 4 ft. minimum acceptable in the absence of a vertical curb  
| | 2) Shared pavement marking for planned bike route |

<table>
<thead>
<tr>
<th>Vehicle Zone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shoulder</strong></td>
<td>Not typical</td>
</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td>Urban</td>
</tr>
<tr>
<td><strong>Medians/Pedestrian Refuge</strong></td>
<td>Recommended 16 ft., best practices minimum width is 6 ft. for pedestrian refuge only</td>
</tr>
</tbody>
</table>
# Arterial - Boulevard Segment Guidelines

## T5 or T6-M-AB#

T5 Center or T6 Downtown – Mixed Use – Arterial-Boulevard#

<table>
<thead>
<tr>
<th>General Standards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block Length</strong></td>
<td>Recommended 200-600 ft., except where environmental constraints are present</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>1) Underground (provided there is no street tree conflict)</td>
</tr>
<tr>
<td><strong>(in order of preferred location)</strong></td>
<td>2) Alley/service road</td>
</tr>
<tr>
<td></td>
<td>3) Planting strip</td>
</tr>
<tr>
<td><strong>Stormwater Management</strong></td>
<td>Curb and gutter, coupled with Low Impact Development strategies</td>
</tr>
</tbody>
</table>

## Pedestrian Zone

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frontage Zone</strong></td>
<td>4 ft. standard; 2 ft. minimum</td>
</tr>
<tr>
<td><strong>Pedestrian Travelway (Sidewalk)</strong></td>
<td>10 ft. standard; 8 ft. minimum</td>
</tr>
</tbody>
</table>

## Green Zone

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Furnishing Zone</strong></td>
<td>4 ft. standard; 4 ft. minimum</td>
</tr>
<tr>
<td><strong>Street Tree planting areas</strong></td>
<td>Trees in wells are recommended, minimum well dimension should be 4 ft. x 6 ft.</td>
</tr>
<tr>
<td><strong>Transit Stops</strong></td>
<td>If located along full-time, on-street parking, transit stops should include curb extensions.</td>
</tr>
</tbody>
</table>

## Parking Zone

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-Street Parallel Parking</strong></td>
<td>8 ft. standard</td>
</tr>
<tr>
<td><strong>Curb Extensions</strong></td>
<td>Recommended when full-time on-street parking exists</td>
</tr>
</tbody>
</table>

## Bike Zone

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(options)</strong></td>
<td>1) Shared pavement marking</td>
</tr>
<tr>
<td></td>
<td>2) Bike lane, 6 ft. standard; 4 ft. minimum acceptable in the absence of a vertical curb</td>
</tr>
</tbody>
</table>

## Vehicle Zone

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shoulder</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Lane Width</strong></td>
<td>Urban</td>
</tr>
<tr>
<td><strong>Medians/Pedestrian Refuge</strong></td>
<td>Recommended 16 ft., best practices minimum width is 6 ft. for pedestrian refuge only</td>
</tr>
</tbody>
</table>
Arterial - Boulevard with Swales and Multi-use Path

Context

• T2 Residential (Non-Urban lane width)
• T2 Mixed Use (Non-Urban lane width)
• T3 Residential (Non-urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
**FIGURE AB3**

**Arterial - Boulevard with Median**

**Context**
- T3 Residential (Urban lane width)
- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Arterial - Boulevard with Parking, Pedestrian Refuge and Bike Lanes

Context
- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Figure AB5

Arterial-Boulevard with Median/Turn lane and Wide Outside Lanes

Context

- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Arterial - Boulevard with Parking and Wide Outside Lanes

Context

- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
**Context**

- T3 Mixed Use (Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)
- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

*See discussion of Street Elements starting on page 27 for detailed information on each element.*
Arterial - Boulevard  One Way with Parking

**Context**

- T5 Mixed Use (Urban lane width)
- T6 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Thoughtful intersection design is essential to reduce conflicts between modes of transportation: vehicles, pedestrians, and cyclists. Good intersection design allows all users the opportunity to continue their trip in a safe and orderly manner.

**Medians**

Medians are not typical at smaller intersections, those generally involving two lane roads. Medians are recommended as pavement widths increase and crossing distances for pedestrians are lengthened, as medians provide a refuge for pedestrians mid-crossing.

**Left-turn Lanes**

Left turn lanes are typical for Arterial-Boulevards with three lanes or more.

**Right-turn Lanes**

Right turn lanes are not typical on Arterial-Boulevards due to the high connectivity in the surrounding street network. When right-turn lanes are necessary a pedestrian island should be considered to increase pedestrian safety. Islands should be a minimum of 50 square feet and landscaped to provide a buffer between vehicles and pedestrians.

**Curb Extensions**

Boulevard intersections transitioning from on-street parking and those with large shoulders should include curb extensions. Curb extensions help reduce the intersection crossing distance for pedestrians and clearly define the limits of on-street parking.

**Curb Radii**

It is recommended to keep curb radii as small as possible. Curb radii should be measured by effective radius of turning movements, not actual curb radius.

**Crosswalks**

Crosswalks are recommended at all intersections on all legs, unless pedestrian crossings would decrease safety. Crosswalks should be located outside of the curb radius where possible, while remaining as close to the intersection as possible.
Section III: Arterial - Parkway

Arterial - Parkway Defined
Arterial-Parkways (AP) serve longer trips, are high-volume, and are intended for distributing trips throughout the larger street network. Arterial-Parkways are at-grade, limited access roadways.

Intent
Arterial-Parkways prioritize the mobility needs of multiple transportation modes over access to businesses and residences. Access management occurs through the use of long blocks and very limited property access points. Arterial-Parkways provide significant landscaping and multimodal enhancements such as multi-use paths, bikeways and/or sidewalks. Improvements may include some or all of the following: vegetated medians, street trees and other urban design elements that create a linear open space.

Context
Existing Arterial- Parkways are rare in Nashville. State Route 45 and Two Rivers Parkway are at-grade, limited-access roadways that provide mobility for cross-town trips while also acting as linear green spaces with landscaping along them. The proposed Southeast Arterial-Parkway should be built according to guidelines for Arterial-Parkways highlighted in this document, including an adjacent multi-use path to accommodate additional travel modes.

Guidelines
These design guidelines are to be used by the private and public sectors when proposing street improvements and/or new streets. The guidelines are expressed in a series of tables and diagrams for street segments and general guidelines for intersections. Figure AP1 shows the Typical Zones and the purposes served by each.

Arterial - Parkway Elements
Tables AP1 and AP2 list the design guidelines for Arterial-Parkway segments and the design elements within the right-of-way. These tables are followed by a variety of possible cross-sections for Arterial-Parkways.

Arterial-Parkway Intersection Guidelines
At the end of the section is a list of guidelines for how to create an appropriate Arterial-Parkway intersection as well as intersections of Arterial-Parkway and other street types.

Arterial - Parkway at a Glance
Future Complete Street Function:
- Serve longer vehicular and bicycle trips
- Potentially high traffic volumes
- Distribute trips throughout the larger network
- Connects centers
- Mobility is priority, including cyclists

Potential Design Remedies:
- Introduce access management
- Reduce number of vehicular lanes
- Introduce medians
- Introduce shared use trail for bicycles and pedestrians adjacent to Arterial-Parkway
- Balance transit elements – future light rail or bus rapid transit

T3 Suburban Arterial-Parkway
Throughout the tables and the diagrams, street sections are divided into zones with corresponding colors. A description of the zones is found on pages 27-31.

- **Development Zone**
  - Setbacks, design and land uses will vary, but the basic intent for this zone is to orient development toward the street. Access from individual properties to the Arterial-Parkway is very limited.

- **Pedestrian Zone**
  - Pedestrian travel should be a comfortable travel option on Arterial-Parkways. Therefore, this zone should include unobstructed sidewalks or multi-use paths at appropriate widths for adjacent and surrounding land uses.

- **Green Zone**
  - Landscaping and trees in the Green Zone serve multiple purposes:
    - Buffering for pedestrians from weather and automobile traffic
    - Green Infrastructure to mitigate stormwater and summer heat/glare
    - Underlying support for property values/desirability of real estate

- **Parking Zone**
  - This zone does not exist on Parkways given their higher speeds and limited-access nature.

- **Bicycle Zone**
  - Arterial-Parkways typically have higher traffic speeds and volumes, so bicyclists are less likely to feel comfortable in mixed traffic; this zone is important for modal balance, safety and additional buffering between drivers and pedestrians. Bicycle facilities can be provided in a multi-use path.

- **Vehicle Zone**
  - The Vehicle Zone serves motor vehicles, with a variety of lane configurations, to accommodate high traffic volumes.
# Arterial - Parkway Segment Guidelines

## T2-R/M-AP#
**T2 Rural – Res/Mixed Use – Arterial-Parkway#**

## T3-R-AP#
**T3 Suburban – Residential – Arterial-Parkway#**

## T3-M-AP#
**T3 Suburban – Mixed Use – Arterial-Parkway#**

### General Standards

<table>
<thead>
<tr>
<th>Block Length</th>
<th>Recommended ½ mile (2,640’); shorter block lengths allowed for intersecting major streets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>(in order of preferred location) Within ROW avoiding conflicts with trees and stormwater infrastructure</td>
</tr>
<tr>
<td></td>
<td>1) Underground</td>
</tr>
<tr>
<td></td>
<td>2) Behind sidewalk (where greater setbacks allow)</td>
</tr>
<tr>
<td></td>
<td>3) Planting strip</td>
</tr>
<tr>
<td>Stormwater Management</td>
<td>Swales or other Low Impact Development strategies</td>
</tr>
<tr>
<td></td>
<td>Curb and gutter, coupled with Low Impact Development strategies</td>
</tr>
</tbody>
</table>

### Pedestrian Zone

<table>
<thead>
<tr>
<th>Frontage Zone</th>
<th>Necessary width to maintain clear zone</th>
</tr>
</thead>
</table>
| Pedestrian Travelway (Sidewalk) | 1) Recommended 10 ft. multi-use path on one side of street  
2) 6 ft. minimum or wider sidewalk appropriate alternative  |
|              | 1) Recommended 10 ft. multi-use path on both sides of street  
2) 8 ft. minimum or wider sidewalk appropriate alternative  |

### Green Zone

<table>
<thead>
<tr>
<th>Furnishing Zone</th>
<th>Drainage swale, 12 ft. standard; 5 ft. minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Tree Guidelines</td>
<td>Informal plantings with a minimum clear zone of 25 ft. from edge of pavement</td>
</tr>
<tr>
<td>Transit Stops</td>
<td>Stops should be located off the roadway with paved pad for passengers</td>
</tr>
</tbody>
</table>

### Parking Zone

<table>
<thead>
<tr>
<th>On-Street Parking</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb Extensions</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Bike Zone

| (options) | 1) Multi-use path  
2) Wide outside shoulder |
|-----------|---------------------|

### Vehicle Zone

<table>
<thead>
<tr>
<th>Shoulder</th>
<th>10 ft. standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Width</td>
<td>Non-urban</td>
</tr>
<tr>
<td>Medians/Pedestrian Refuge</td>
<td>Recommended 12 ft. or wider vegetated median. Pedestrian refuge should be included at intersections</td>
</tr>
<tr>
<td>TABLE</td>
<td>Arterial - Parkway Segment Guidelines</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td>T4 Urban – Residential – Arterial-Parkway#</td>
</tr>
<tr>
<td>General Standards</td>
<td></td>
</tr>
<tr>
<td>Block Length</td>
<td>Recommended ¼ mi. (1,320 ft.); shorter block lengths allowed for intersecting major streets</td>
</tr>
<tr>
<td>Utilities (in order of preferred location)</td>
<td>1) Underground (pending no street tree conflict) 2) Alley/service road 3) Behind sidewalk (where greater setbacks allow) 4) Planting strip</td>
</tr>
<tr>
<td>Stormwater Management</td>
<td>Curb and gutter, coupled with Low Impact Development strategies</td>
</tr>
<tr>
<td>Pedestrian Zone</td>
<td></td>
</tr>
<tr>
<td>Frontage Zone</td>
<td>Necessary width to maintain clear zone</td>
</tr>
<tr>
<td>Pedestrian Travelway (Sidewalk) (In order to preferred type)</td>
<td>Recommended 10 ft. multi-use path on both sides Sidewalk may be appropriate in pedestrian oriented areas, recommended 8’ minimum</td>
</tr>
<tr>
<td>Green Zone</td>
<td></td>
</tr>
<tr>
<td>Furnishing Zone</td>
<td>Recommended 8 ft.or wider planting strip (landscaping/trees primarily in setbacks); 6 ft. minimum</td>
</tr>
<tr>
<td>Street Tree planting areas</td>
<td>Informal plantings with a minimum clear zone of 25 ft. from edge of pavement.</td>
</tr>
<tr>
<td>Transit Stops</td>
<td>Stops should be located off the roadway with paved pad for passengers</td>
</tr>
<tr>
<td>Parking Zone</td>
<td></td>
</tr>
<tr>
<td>On-Street Parking</td>
<td>N/A</td>
</tr>
<tr>
<td>Curb Extensions</td>
<td>N/A</td>
</tr>
<tr>
<td>Bike Zone</td>
<td></td>
</tr>
<tr>
<td>(options)</td>
<td>1) Multi-use path 2) Wide outside shoulder</td>
</tr>
<tr>
<td>Vehicle Zone</td>
<td></td>
</tr>
<tr>
<td>Shoulder</td>
<td>Not typical</td>
</tr>
<tr>
<td>Lane Width</td>
<td>Urban</td>
</tr>
<tr>
<td>Medians/Pedestrian Refuge</td>
<td>Recommended 12 ft. or wider vegetated median. Pedestrian refuge should be included at intersections</td>
</tr>
</tbody>
</table>
Arterial - Parkway with Median, Swales and Multi-use Path

Context

- T2 Residential
  (Non-urban lane width)
- T2 Mixed Use
  (Non-urban lane width)
- T3 Residential
  (Non-Urban lane width)
- T3 Mixed Use
  (Non-urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Arterial - Parkway with Median and Multi-use Path

Context

- T3 Residential (Non-Urban lane width)
- T3 Mixed Use (Non-Urban lane width)
- T4 Residential (Urban lane width)
- T4 Mixed Use (Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Arterial-Parkway Intersections

Thoughtful intersection design is essential to reduce conflicts between modes of transportation: vehicles, pedestrians, and cyclists. Good intersection design will allow all users the opportunity to continue their trip in a safe and orderly manner.

Medians

Medians are recommended for all intersections. Arterial-Parkways are typically wide, with multiple lanes for pedestrians to cross. Medians provide a needed refuge for pedestrians mid-crossing.

Left-turn Lanes

Left turn lanes are typical on Arterial-Parkways.

Right-turn Lanes

Right turn lanes are not recommended at Arterial-Parkway intersections with Collector-Avenues. Right turn lanes are typical where Arterial-Parkways intersect with Arterial-Boulevards. When right-turn lanes are necessary a pedestrian island is preferred to increase pedestrian safety. Islands should be a minimum of 50 square feet and landscaped to provide a buffer between vehicles and pedestrians.

Curb Extensions

Not typical on Arterial-Parkways, as these streets have higher speeds and no on-street parking.

Curb Radii

Curb radii should be measured by effective radius of turning movements, not actual curb radius.

Crosswalks

Crosswalks are recommended at all intersections on all legs, unless pedestrian crossing would decrease safety. Crosswalks should be located outside of the curb radius where possible, while remaining as close to the intersection as possible.
Multimodal Corridors Defined

Throughout Nashville’s history, the city’s major corridors have supported public transit in various forms. Originally, streetcars carried people from the city center to outlying neighborhoods. Today, bus service operates in mixed traffic on most major and many collector streets.

As Nashville plans for the future, mass transit will be crucial to the city’s growth, prosperity and preservation of the city’s character. To preserve Nashville’s remaining rural communities and natural features, anticipated growth will be directed to infill sites, many of which are in mixed use centers and on prominent corridors. Transit will be needed to serve this additional development, especially because in many infill settings, repeated widening of the streets is not economically feasible and will not preserve the existing community character. Meanwhile, demographics trends tell us that Nashville will have growing populations that cannot drive or choose not to drive. Providing transportation choice for these community members – aging Baby Boomers, children, people seeking more active lifestyles – is critical to Nashville’s continued quality of life.

For these reasons, many of the prominent corridors in Nashville – including Nolensville Pike, Murfreesboro Pike, Lebanon Pike,
Gallatin Pike, Clarksville Pike, West End/Hwy 70 and Franklin Pike among others – will need to be designed to provide multimodal options in the future. The MCSP cannot predict the exact type of transit that each of these corridors could feature or the exact street design needed to accommodate transit, cyclists, pedestrians and vehicles. The MCSP does, however, anticipate that each of these streets will be called upon to serve as a prominent multimodal corridor for Nashville in the future.

Therefore, these corridors are marked, on the MCSP map, as a combination of Regional Multimodal Corridors and Urban Multimodal Corridors. For the purposes of communicating with funding entities and zoning that is tied to functional classification, these streets are considered arterials. The MCSP does not, however, provide specific design guidelines. Rather, the MCSP states that the specific transit to be provided and the design needed to create the Multimodal corridor, must be determined through individual study of the Multimodal corridor that will be triggered either by development proposals or public investment proposals.

**Intent**

While many streets in Nashville serve as multimodal routes today, the streets designated as Multimodal Corridors in the MCSP are planned to eventually provide a higher level of multimodal mobility. Some of these streets will meet transit needs through the addition of a higher level of bus service or streetcar; others through the addition of Bus Rapid Transit (BRT) or Light Rail Transit (LRT).

Further study may also find that some of these Multimodal Corridors may not actually contain the primary transit for a larger corridor, but will support the primary transit line, such as in the instance of Light Rail Transit in the I40/Charlotte Avenue corridor. In this hypothetical example, Light Rail Transit would be located on I40, but Charlotte Avenue would then have enhanced bus or streetcar operations to support the Light Rail by dispersing riders once they get off the Light Rail.

The streets designated as Multimodal Corridors in the MCSP were given that designation because the Metro Transit Authority (MTA) and the Metropolitan Planning Organization (MPO, the regional transportation planning body) have indicated that these streets are...
part of corridors that play an important role in county-wide and regional transportation – linking jobs and housing and recreation for the region. The MCSP acknowledges these streets’ role by designating them as Regional Multimodal Corridors and Urban Multimodal Corridors.

Urban Multimodal Corridors are corridors in the more urbanized areas of Nashville, providing access to and from the city center. Because these areas are intensely developed, these corridors will have transit that features slower operating speeds, more frequent stops and may be in shared lanes with automobiles.

Meanwhile, Regional Multimodal Corridors are continuations of the Urban Multimodal Corridors and provide mobility on a regional level – Clarksville Pike connects Nashville and Clarksville, while Gallatin Pike connects Nashville, Hendersonville and Gallatin. Because these corridors pass through areas that are less densely developed and where rights-of-way and development patterns provide fewer constraints to future transit options, the design of these corridors will likely feature dedicated transit lanes, new station facilities and fewer stops that are spaced further apart.

In some cases the Regional and Urban designations overlap as the Multimodal corridor serves both types of trips.

For both Urban Multimodal Corridors and Regional Multimodal Corridors, planning for enhanced transit services for the future requires specific consideration of the varying physical and operating characteristics of the type of transit as well as consideration of the context of the area – its density, land uses, and character. That is why detailed design guidelines for the Multimodal Corridors are not included in this document. Instead, county-level and regional-level planning processes conducted by the MTA and MPO respectively, should be undertaken in order to fully understand the context and transit needs and possibilities for each specific corridor.
**Multimodal Map**

The MCSP Map (portion shown at right) indicates Multimodal corridors with a quarter mile buffer to indicate the need for enhanced pedestrian and bicycle facilities for users accessing the transit route.

This example show a Multimodal corridor that transitions from an urban to a regional route. As it becomes more regional, the primary mass transit service may actually follow another route than the one shown here, such as the interstate or existing rail line - depending on the conclusions of a comprehensive transit planning study. Transit on the route indicated here would still remain an important component to the overall transit corridor.
FIGURE M1

Multimodal Corridor: Urban Cross Section with Limited Right-of-Way

- T3 - T6
  (Urban lane width)

Context

See discussion of Street Elements starting on page 27 for detailed information on each element.
Multimodal Corridor: Urban Cross Section with On-Street Parking

**Context**
- T3 - T6
  (Urban lane width)

*See discussion of Street Elements starting on page 27 for detailed information on each element.*
Figure M3
Multimodal Corridor: Regional Cross Section

Context

- T2 - T6
  (T2: Non-Urban lane width)
  (T3- T6: Urban lane width)

See discussion of Street Elements starting on page 27 for detailed information on each element.
Appendix A:
Right-of-Way Dimensions

Right-of-Way Elements and Dimensions - Quick Reference.

The following charts are provided as a quick reference for both public and private sector use in determining the dimensions of specific elements within the right-of-way (Table A1) and determining the width of the Standard right-of-way for every Major and Collector street type (Table A2).

The tables indicate the recommended dimensions for both the individual street elements and the overall right-of-way width. As indicated in Chapter 3, there will be circumstances in which a street is deemed “constrained” and these dimensions may be adjusted. Please review Chapter 3 for more information regarding constrained facilities.
### Table A1: Street Elements Standard Dimensions

<table>
<thead>
<tr>
<th>Major and Collector Street Plan</th>
<th>Streetside</th>
<th>Stormwater</th>
<th>Travel Way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal Street Standards Quick Reference</td>
<td>Frontage Zone</td>
<td>Pedestrian Travelway</td>
<td>Furnishing Zone / Planting Strip</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>T2 Residential</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Arterial Boulevard T2-R-CA</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Arterial Parkway T2-R-AP</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Arterial Boulevard T2-M-CA</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Arterial Parkway T2-M-AP</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>T3 Residential</td>
<td>- 6 ft.</td>
<td>6 ft.</td>
<td>12 ft.</td>
</tr>
<tr>
<td>Arterial Boulevard T3-R-CA</td>
<td>- 6 ft.</td>
<td>8 ft.</td>
<td>14 ft.</td>
</tr>
<tr>
<td>Arterial Parkway T3-R-AP</td>
<td>- 10 ft.</td>
<td>12 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>- 8 ft.</td>
<td>6 ft.</td>
<td>14 ft.</td>
</tr>
<tr>
<td>Arterial Boulevard T3-M-CA</td>
<td>- 8 ft.</td>
<td>6 ft.</td>
<td>14 ft.</td>
</tr>
<tr>
<td>Arterial Parkway T3-M-AP</td>
<td>- 10 ft.</td>
<td>8 ft.</td>
<td>18 ft.</td>
</tr>
<tr>
<td>T4 Residential</td>
<td>- 6 ft.</td>
<td>6 ft.</td>
<td>12 ft.</td>
</tr>
<tr>
<td>Arterial Boulevard T4-R-CA</td>
<td>- 6 ft.</td>
<td>8 ft.</td>
<td>14 ft.</td>
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<tr>
<td>Arterial Parkway T4-R-AP</td>
<td>- 10 ft.</td>
<td>8 ft.</td>
<td>18 ft.</td>
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<td>16 ft.</td>
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<tr>
<td>Arterial Parkway T4-M-AP</td>
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<td>8 ft.</td>
<td>18 ft.</td>
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<tr>
<td>T5 Mixed Use</td>
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<td>18 ft.</td>
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<td>10 ft.</td>
<td>18 ft.</td>
</tr>
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<td>4 ft.</td>
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<tr>
<td>T6 Mixed Use</td>
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<td>18 ft.</td>
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<tr>
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<tr>
<td>Arterial Boulevard T6-M-AP</td>
<td>4 ft.</td>
<td>10 ft.</td>
<td>18 ft.</td>
</tr>
</tbody>
</table>

1 - Metro Standard Curb with Gutter = 2.5 ft. (24 inch gutter pan + 6 inch curb)
2 - Min. distance between bike lane outside striping and vertical curb shall be 5 ft. (no less than 3 ft. of bike lane should be part of the paved asphalt, outside the gutterpan); Bike lane may be 4 ft. minimum when no vertical curb is present
3 - Bicycle Zone and Pedestrian Travelway to be combined into one 10 ft. Multi-use path on one side of the street.
4 - Bicycle Zone and Pedestrian Travelway to be combined into one 10 ft. Multi-use path on both sides of the street.
<table>
<thead>
<tr>
<th>Major and Collector Street Plan</th>
<th>Standard ROW Chart</th>
<th>Standard ROW</th>
<th>Bike Lane</th>
<th>Parking</th>
<th>Bike &amp; Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>57 ft.</td>
<td>69 ft.</td>
<td>65 ft.</td>
<td>81 ft.</td>
<td>69 ft.</td>
</tr>
<tr>
<td>T2</td>
<td>57 ft.</td>
<td>69 ft.</td>
<td>65 ft.</td>
<td>81 ft.</td>
<td>69 ft.</td>
</tr>
<tr>
<td>T3</td>
<td>57 ft.</td>
<td>69 ft.</td>
<td>65 ft.</td>
<td>81 ft.</td>
<td>69 ft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major and Collector Street Plan</th>
<th>Standard ROW Chart</th>
<th>Standard ROW</th>
<th>Bike Lane</th>
<th>Parking</th>
<th>Bike &amp; Parking</th>
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<tbody>
<tr>
<td>Industrial</td>
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<td>81 ft.</td>
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<tr>
<td>Mixed Use</td>
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<td>69 ft.</td>
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<tr>
<td>Residential</td>
<td>57 ft.</td>
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<td>81 ft.</td>
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<table>
<thead>
<tr>
<th>Major and Collector Street Plan</th>
<th>Standard ROW Chart</th>
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<th>Bike Lane</th>
<th>Parking</th>
<th>Bike &amp; Parking</th>
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</thead>
<tbody>
<tr>
<td>D</td>
<td>57 ft.</td>
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<td>65 ft.</td>
<td>81 ft.</td>
<td>69 ft.</td>
</tr>
<tr>
<td>T2</td>
<td>57 ft.</td>
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<td>65 ft.</td>
<td>81 ft.</td>
<td>69 ft.</td>
</tr>
<tr>
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<td>69 ft.</td>
</tr>
<tr>
<td>T4</td>
<td>Collector Avenue</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>T4-M-C2</td>
<td>59 ft.</td>
<td>67 ft.</td>
<td>71 ft.</td>
<td>83 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-M-C2-MM</td>
<td>61 ft.</td>
<td>69 ft.</td>
<td>73 ft.</td>
<td>85 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-M-C3</td>
<td>70 ft.</td>
<td>78 ft.</td>
<td>82 ft.</td>
<td>94 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-M-C4-MM</td>
<td>81 ft.</td>
<td>89 ft.</td>
<td>93 ft.</td>
<td>105 ft.</td>
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<tr>
<td>T4-M-C4-MM-MM</td>
<td>83 ft.</td>
<td>91 ft.</td>
<td>95 ft.</td>
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</tr>
<tr>
<td>T4-M-C5</td>
<td>92 ft.</td>
<td>100 ft.</td>
<td>104 ft.</td>
<td>116 ft.</td>
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</tr>
<tr>
<td>T4-M-AB2</td>
<td>59 ft.</td>
<td>67 ft.</td>
<td>71 ft.</td>
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<td>61 ft.</td>
<td>69 ft.</td>
<td>73 ft.</td>
<td>85 ft.</td>
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<tr>
<td>T4-M-AB3</td>
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<td>82 ft.</td>
<td>94 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-M-AB3-MM</td>
<td>72 ft.</td>
<td>80 ft.</td>
<td>84 ft.</td>
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</tr>
<tr>
<td>T4-M-AB4</td>
<td>81 ft.</td>
<td>89 ft.</td>
<td>93 ft.</td>
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</tr>
<tr>
<td>T4-M-AB4-MM</td>
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<td>91 ft.</td>
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</tr>
<tr>
<td>T4-M-AB5</td>
<td>92 ft.</td>
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<td>104 ft.</td>
<td>116 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-M-AB5-MM</td>
<td>94 ft.</td>
<td>102 ft.</td>
<td>106 ft.</td>
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<tr>
<td>T4-M-AB6</td>
<td>103 ft.</td>
<td>111 ft.</td>
<td>115 ft.</td>
<td>127 ft.</td>
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</tr>
<tr>
<td>T4-M-AB6-MM</td>
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<td>113 ft.</td>
<td>117 ft.</td>
<td>129 ft.</td>
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<tr>
<td>T4-M-AB7</td>
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<td>126 ft.</td>
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<td>T4-M-AB7-MM</td>
<td>116 ft.</td>
<td>124 ft.</td>
<td>128 ft.</td>
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</tr>
<tr>
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<td>63 ft.</td>
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<td>75 ft.</td>
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<td>T4-M-AP3</td>
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<td>86 ft.</td>
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<td>T4-M-AP4</td>
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<td>97 ft.</td>
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<td>104 ft.</td>
<td>108 ft.</td>
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</tr>
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<td>T4-M-AP6</td>
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<td>115 ft.</td>
<td>119 ft.</td>
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</tr>
<tr>
<td>T4-M-AP7</td>
<td>118 ft.</td>
<td>126 ft.</td>
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</tr>
<tr>
<td>T4-R-C2</td>
<td>51 ft.</td>
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<td>63 ft.</td>
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</tr>
<tr>
<td>T4-R-C2-MM</td>
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<td>67 ft.</td>
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<td>T4-R-C3</td>
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<td>T4-R-C4</td>
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<tr>
<td>T4-R-C4-MM</td>
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<td>87 ft.</td>
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<tr>
<td>T4-R-C4-MM-MM</td>
<td>77 ft.</td>
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<td>89 ft.</td>
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<td>T4-R-C5</td>
<td>84 ft.</td>
<td>92 ft.</td>
<td>96 ft.</td>
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<td></td>
</tr>
<tr>
<td>T4-R-AB2</td>
<td>51 ft.</td>
<td>59 ft.</td>
<td>63 ft.</td>
<td>75 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-R-AB2-MM</td>
<td>53 ft.</td>
<td>61 ft.</td>
<td>65 ft.</td>
<td>77 ft.</td>
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</tr>
<tr>
<td>T4-R-AB2-MM-MM</td>
<td>55 ft.</td>
<td>63 ft.</td>
<td>67 ft.</td>
<td>79 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-R-AB3</td>
<td>64 ft.</td>
<td>72 ft.</td>
<td>76 ft.</td>
<td>88 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-R-AB3-MM</td>
<td>66 ft.</td>
<td>74 ft.</td>
<td>78 ft.</td>
<td>90 ft.</td>
<td></td>
</tr>
<tr>
<td>T4-R-AB3-MM-MM</td>
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<td>76 ft.</td>
<td>80 ft.</td>
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</tr>
<tr>
<td>T4-R-AB4</td>
<td>77 ft.</td>
<td>85 ft.</td>
<td>89 ft.</td>
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<td>T4-R-AB4-MM</td>
<td>79 ft.</td>
<td>87 ft.</td>
<td>91 ft.</td>
<td>103 ft.</td>
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<td>T4-R-AB5</td>
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<td>T4-R-AB5-MM</td>
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<td>102 ft.</td>
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</tr>
<tr>
<td>T4-R-AB5-MM-MM</td>
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<td>100 ft.</td>
<td>104 ft.</td>
<td>116 ft.</td>
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</tr>
<tr>
<td>T4-R-AB6</td>
<td>94 ft.</td>
<td>102 ft.</td>
<td>106 ft.</td>
<td>118 ft.</td>
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<tr>
<td>T4-R-AB6-MM</td>
<td>96 ft.</td>
<td>104 ft.</td>
<td>108 ft.</td>
<td>120 ft.</td>
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</tr>
<tr>
<td>T4-R-AB7</td>
<td>107 ft.</td>
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<td>123 ft.</td>
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<td>T4-R-AP2</td>
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<td>-</td>
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</tr>
<tr>
<td>T4-R-AP4</td>
<td>85 ft.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T4-R-AP5</td>
<td>96 ft.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T4-R-AP6</td>
<td>107 ft.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T4-R-AP7</td>
<td>118 ft.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-C2</td>
<td>63 ft.</td>
<td>71 ft.</td>
<td>75 ft.</td>
<td>87 ft.</td>
<td></td>
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<tr>
<td>T5-T5-M-C3</td>
<td>74 ft.</td>
<td>82 ft.</td>
<td>86 ft.</td>
<td>98 ft.</td>
<td></td>
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<tr>
<td>T5-T5-M-C4</td>
<td>85 ft.</td>
<td>93 ft.</td>
<td>97 ft.</td>
<td>109 ft.</td>
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<tr>
<td>T5-T5-M-C5</td>
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<td>104 ft.</td>
<td>108 ft.</td>
<td>120 ft.</td>
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<tr>
<td>T5-T5-M-AB2</td>
<td>63 ft.</td>
<td>71 ft.</td>
<td>75 ft.</td>
<td>87 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB2-MM</td>
<td>65 ft.</td>
<td>73 ft.</td>
<td>77 ft.</td>
<td>89 ft.</td>
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</tr>
<tr>
<td>T5-T5-M-AB3</td>
<td>74 ft.</td>
<td>82 ft.</td>
<td>86 ft.</td>
<td>98 ft.</td>
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</tr>
<tr>
<td>T5-T5-M-AB3-MM</td>
<td>76 ft.</td>
<td>84 ft.</td>
<td>88 ft.</td>
<td>100 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB4</td>
<td>85 ft.</td>
<td>93 ft.</td>
<td>97 ft.</td>
<td>109 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB4-MM</td>
<td>87 ft.</td>
<td>95 ft.</td>
<td>99 ft.</td>
<td>111 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB5</td>
<td>96 ft.</td>
<td>104 ft.</td>
<td>108 ft.</td>
<td>120 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB5-MM</td>
<td>98 ft.</td>
<td>106 ft.</td>
<td>110 ft.</td>
<td>122 ft.</td>
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<td>T5-T5-M-AB6</td>
<td>107 ft.</td>
<td>115 ft.</td>
<td>119 ft.</td>
<td>131 ft.</td>
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<tr>
<td>T5-T5-M-AB6-MM</td>
<td>109 ft.</td>
<td>117 ft.</td>
<td>121 ft.</td>
<td>133 ft.</td>
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<tr>
<td>T5-T5-M-AB7</td>
<td>118 ft.</td>
<td>126 ft.</td>
<td>130 ft.</td>
<td>142 ft.</td>
<td></td>
</tr>
<tr>
<td>T5-T5-M-AB7-MM</td>
<td>120 ft.</td>
<td>128 ft.</td>
<td>132 ft.</td>
<td>144 ft.</td>
<td></td>
</tr>
</tbody>
</table>

| T6-T6-M-C2 | 63 ft. | 71 ft. | 75 ft. | 87 ft. |
| T6-T6-M-C3 | 74 ft. | 82 ft. | 86 ft. | 98 ft. |
| T6-T6-M-C4 | 85 ft. | 93 ft. | 97 ft. | 109 ft. |
| T6-T6-M-C5 | 96 ft. | 104 ft. | 108 ft. | 120 ft. |
| T6-T6-M-AB2 | 63 ft. | 71 ft. | 75 ft. | 87 ft. |
| T6-T6-M-AB2-MM | 65 ft. | 73 ft. | 77 ft. | 89 ft. |
| T6-T6-M-AB3 | 74 ft. | 82 ft. | 86 ft. | 98 ft. |
| T6-T6-M-AB3-MM | 76 ft. | 84 ft. | 88 ft. | 100 ft. |
| T6-T6-M-AB4 | 85 ft. | 93 ft. | 97 ft. | 109 ft. |
| T6-T6-M-AB4-MM | 87 ft. | 95 ft. | 99 ft. | 111 ft. |
| T6-T6-M-AB5 | 96 ft. | 104 ft. | 108 ft. | 120 ft. |
| T6-T6-M-AB5-MM | 98 ft. | 106 ft. | 110 ft. | 122 ft. |
| T6-T6-M-AB6 | 107 ft. | 115 ft. | 119 ft. | 131 ft. |
| T6-T6-M-AB6-MM | 109 ft. | 117 ft. | 121 ft. | 133 ft. |
| T6-T6-M-AB7 | 118 ft. | 126 ft. | 130 ft. | 142 ft. |
| T6-T6-M-AB7-MM | 120 ft. | 128 ft. | 132 ft. | 144 ft. |

Both Regional Multi-modal (RM) and Urban Multi-modal (UM) designations are labeled in the chart as Multi-modal (MM).
Appendix B: Resources and Tools Used to Determine the Classification of Each Street

Process for Determining Functional Design Type

In updating the MCSP, functional design type decisions were based on four primary factors:


2. Mobility 2030’s guiding principles for creating a sustainable transportation system. These principles guided an extensive review of existing conditions using Geographic Information Systems (GIS) research that included assessment of aerial photography, existing buildings and street patterns, existing and proposed land uses and built form, and existing right-of-way and environmental constraints (floodplains, steep topography).

3. The Nashville Area MPO’s regional travel demand model, which allowed staff to model proposed street classifications and evaluate the results for each proposal’s strength of outcomes in creating a sustainable transportation system for Nashville and Davidson County.

4. Review and evaluation of the proposed street classifications by Planning Staff, partner agencies such as Public Works and TDOT, and the community resulted in a reclassification of some streets. The regional travel demand model was not re-run because the changes made would have only added more capacity in the street network.

Nashville Area Metropolitan Planning Organization (MPO) Travel Demand Model

Like most MPOs, the Nashville Area MPO has a Travel Demand Model that guides transportation planning decisions for its seven-county planning area (Davidson, Rutherford, Sumner, Williamson, Wilson and parts of Maury and Robertson counties). Planning staff ran the travel demand model to begin the MCSP update process in 2010. The following results were just one part of the decision-making process. Other factors weighed included those outlined in Chapters 1 and 2 of the MCSP, and those reflected in the Mobility 2030 guiding principles. Following review by the Metro Public Works Department and Nashville community members changes to street designations occurred which resulted in slight alterations to the figures listed.

A travel demand model is a computer software package that mimics the “real world” transportation system in a basic four-step process:

1. **Trip Generation** – This step considers socioeconomic data (households, population, employment) and land use data (density, use) for traffic analysis zones (TAZs), producing trips generated by a given land use or household type. This process looks at the relationship between “productions” (i.e. residential areas, where people are coming from) and “attractions” (i.e. employment and commercial centers, where people are going).

2. **Trip Distribution** – With the total number of trips (i.e. travel demand) estimated, this step then matches “productions” to “attractions.” The process for trip distribution relies on the assumption that time spent traveling is perceived negatively; the more distant the destination, the more burdensome the trip. Therefore, most of the trips produced in a given zone will be attracted to surrounding or nearby zones; some will be attracted to moderately distant zones; and very few are attracted to very distant zones.

3. **Mode Choice** – This step predicts likely travel modes for the movement of people and goods in the region. As of April 2011, the Nashville Area MPO has developed a mode choice model that will predict the probability of travel by specific modes. The mode choice model will assume mode choices based on relative availability and attractiveness of existing and future bus and commuter rail service. It is assumed that when transit options are introduced to the region, it will have a positive effect on congestion. Factors that are considered in
the attractiveness of a mode include but are not limited to: accessibility of transit, automobile ownership, proximity to HOV lanes, transportation costs, parking cost, and time required to use the mode.

4. **Trip Assignment** – The final step in the process is to estimate the routes people and goods will take in the region. This step creates traffic volumes that find the best “path” through the network, determining the shortest way both in terms of time and distance to get from TAZ to TAZ. Once a given street reaches its capacity, the model then starts diverting trips to the next best available link until all “productions” are matched with “attractions.” This step is important for estimating travel speeds, which are the primary indicator of congestion.

**Methodology/Travel Demand Model Background**

The Nashville Area MPO defines “congestion” as less than 70 percent of free-flow speed. For example, on a 40 mph street, traffic would be traveling less than 28 mph in a 70 percent free-flow speed. For the update of the MCSP, the Metro Planning Department further refined this standard to show a greater range of congestion levels ranging from <=50 percent of free-flow speed. This range is more appropriate for developed areas of the city that have more compact development patterns, access to transportation options (pedestrian, bicycle, and transit) and a more walkable nature that benefits from slower speeds.

**Defining Congestion**

The following is an example of how an arterial street, with a posted speed of 40 miles per hour (i.e. free-flow speed) is assessed under the Metro Planning network scenario.

- < 50% of free-flow speed = Severe Congestion: i.e. 40 mph street, with traffic moving less than 20 mph
- 50-70% of free-flow speed = Moderate Congestion: i.e. 40 mph street, with traffic moving between 20-28 mph
- > 70% of free-flow speed = Not Congested: i.e. 40 mph street, with traffic moving between 28-40 mph

**Scenario Modeled with the MPO Model**

Metro Planning staff used the MPO model to find results for four different scenarios. While Scenario 1 is based on 2008 population...
and employment figures, Scenarios 2, 3 and 4 are based on population and employment projections for the year 2035 in addition to widened and newly-constructed streets.

1. **2008 Base Year** – This scenario assumes all existing roads of the transportation network as of 2008.

2. **2035 MPO Existing + Committed Projects (E+C)** – This scenario assumes all the existing roads plus build-out of the MPO’s Transportation Improvement Program (TIP) projects that are already funded and ready for construction between 2008-2012. Existing + Committed includes transportation projects that are in the MPO’s TIP and the fiscally-constrained portion of the Regional Transportation Plan (RTP).

3. **2035 MPO Regional Transportation Plan (RTP) and E+C** – This scenario assumes the build-out of all short-term TIP projects (i.e. E+C) and all RTP projects (widening projects, planned bridges over the Cumberland River and other projects that have no funding or engineering as of December, 2009).

4. **2035 Major and Collector Street Plan Scenario (MCSP)** – This scenario is the proposal included in this MCSP. It includes existing roads plus all RTP Freeway and Expressway projects, plus staff recommendations for upgrading and expanding existing roads, in addition to adding/upgrading Nashville and Davidson County’s surface street network. This scenario also assumes upgrading of existing streets’ functional classification (i.e. changing from local to collector) and build-out of new surface streets in a denser urban street network (generally half-mile spacing between collector streets at a minimum).

### Travel Demand Model Results

The 2035 MCSP network produces better congestion results and a finer-grained street network that lessens Vehicle Miles Traveled (VMT) growth and better supports walkability/transit than the Nashville Area MPO’s current Regional Transportation Plan (RTP). While the model measures congestion, VMT is equally or more important as a measure of a transportation system’s effectiveness. Lane miles, another transportation indicator, are listed in the summary below. Key indicators of the Metro Planning network’s effectiveness include:

1. The 2035 MCSP’s network produces 41 fewer lane miles of severe congestion than RTP
2. The 2035 MCSP’s network reduces the growth of VMT by 851,933 miles daily over the RTP network. High and growing VMT (greater than 30 miles per capita) can negatively impact the quality of life by:
   - Degrading air quality
   - Lessening opportunities for active living
   - Increasing vehicle crash rates
   - Lessening area economic growth and competitiveness
3. The 2035 MCSP’s network creates 31 more lane miles of total street network than the RTP

<table>
<thead>
<tr>
<th>Lane Miles</th>
<th>2008 Base Year</th>
<th>2035 E+C</th>
<th>2035 RTP &amp; E+C</th>
<th>2035 MCSP</th>
<th>2035 E+C &amp; RTP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Daily VMT</strong></td>
<td>18,941,692</td>
<td>24,447,708</td>
<td>25,371,010</td>
<td>24,519,077</td>
<td>851,933</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>626,144</td>
<td>752,326</td>
<td>752,326</td>
<td>752,326</td>
<td>Less daily VMT under MCSP</td>
</tr>
<tr>
<td><strong>VMT per Capita</strong></td>
<td>30</td>
<td>32</td>
<td>34</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

By 2035 Davidson County population grows 20%, or 126,182 people

Regional average VMT for 2000: 31 VMT per capita

Davidson County Vehicle Miles Traveled (VMT)
4. The 2035 MCSP total street network includes the following changes (users should reference the official map for the MCSP for specific locations of changes):

**201 lane miles of widening**
72 ln mls of Arterials – Widen to 3 Lanes
28 ln mls of Collectors – Widen to 3 Lanes
14 ln mls of Arterials – Widen to 4 Lanes
87 ln mls of Arterials – Widen to 5 Lanes

**142 lane miles of Planned Streets**
46 ln mls of Planned New Arterials
76 ln mls of Planned New Collectors
20 ln mls of Planned New Expressway (Harding Pl. Extension north to I-40)

**126 lane miles of Functional Classification Change**
110 lane miles of Upgrade Locals to Collectors
2 lane miles of Upgrade Locals to Arterials (Downtown)
4 lane miles of Upgrade Collectors to Arterials
10 lane miles of Downgrade Arterials to Collectors
5 lane miles of Downgrade Collector to Local

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**Best Practices for Network Design**

The guidance in this plan describes best practices that draw upon the philosophies and practices of Context Sensitive Solutions and Complete Streets. The focus is on major thoroughfares where development intensity, mix of land uses and design features combine to create the opportunity for walking, transit and biking to be feasible transportation choices.

The best practices presented in this plan address:

1. The relationships and tradeoffs involved in balancing mobility needs, adjoining land uses, and environment and community interests;

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**Best Practices for Network Design**

<table>
<thead>
<tr>
<th>Preferred Spacing Interval¹</th>
<th>Average Width (FC-FC² / R.O.W.³)</th>
<th>Average Length</th>
<th>Average Daily Traffic</th>
<th>Average Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Arterial (State / U.S. highways)</td>
<td>3-4 miles (controlled access, i.e. grade-separated)</td>
<td>6 lanes (72'/300')</td>
<td>Greater than 5 miles</td>
<td>30,000-100,000</td>
</tr>
<tr>
<td></td>
<td>1 mile (limited access)</td>
<td>5 lanes (60'/92')</td>
<td>Greater than 5 miles</td>
<td>40,000-60,000</td>
</tr>
<tr>
<td>Minor Arterial (city / county streets)</td>
<td>Urban/Suburban: 1 mile</td>
<td>5 lanes (60'/92')</td>
<td>2-10 miles</td>
<td>10,000-40,000</td>
</tr>
<tr>
<td></td>
<td>Rural: 2 miles</td>
<td>2 lanes (24'/60')</td>
<td>Greater than 10 miles</td>
<td>n/a</td>
</tr>
<tr>
<td>Collector</td>
<td>Urban/Suburban: 1/2 mile (2,660')</td>
<td>2.3 lanes (24'/60')</td>
<td>1-2 miles</td>
<td>2,000-10,000</td>
</tr>
<tr>
<td></td>
<td>Rural: 1 mile</td>
<td>2 lanes (24'/60')</td>
<td>Greater than 2 miles</td>
<td>n/a</td>
</tr>
</tbody>
</table>

¹ Spacing guidelines reflect “ideal network”; distances may vary in relation to existing development/environmental constraints. Planned/new development should seek to meet these standards.

² Face-of-Curb to Face-of-Curb (FC - FC); Right-Of-Way (R.O.W.)

³ Re-allocation of pavement width is main consideration for existing streets in more urban areas; right-of-way width (R.O.W.) has more flexibility and consideration in planned/developing areas.
Appendix C Glossary

Access – The ability to get in and out of surrounding land uses such as businesses or residences on a street.

Access management – Regulations of access to streets, roads, and highways from public roads and private driveways. Regulations may include, but are not limited to, restrictions on the siting of interchanges; restrictions on the type, number and location of access points; and the use of physical controls, such as signals, channelization and raised medians.

Advance stop bars – Pavement marking used to stagger outside lane closer to crosswalk, allowing right-turning drivers greater visibility without encroaching into crosswalk.

Community Character Policies – Nashville and Davidson County’s land use policies, covering the natural and built environment from natural and rural settings to Downtown. Community Character Policies are applied to all property during the Community Plan update process. See Community Character Manual (CCM) at www.nashville.gov/mpc for further detail.

Cross section – A section-view of a street’s elements including travel lanes, sidewalks and landscaping.
**Curb radius (radii for plural)** – The sharpness of a corner at an intersection. Curb radii should be designed based on the minimum requirement of the associated vehicle usage. See the accompanying diagrams and implications of various curb radii.

**Curb radius, actual** - Actual radius is the actual physical radius of concrete curb.

**Curb radius, effective** – The effective curb radius is the radius needed for a vehicle to complete a turning movement. It is based on the design conditions of the roadway utilizing shoulders or on-street parking as buffers for turn movements allowing more room to maneuver turn.

*A small curb radius slows down turning vehicles, which makes an intersection safer for pedestrians. Reducing the curb radius can cut the time it takes to cross a two-lane street nearly in half:*
Far-side bus stop – Far-side bus stops are stops located just after a signalized intersection (see graphic). They are the most preferable stop location since they allow approaching drivers and bicyclists to see a stopped bus in advance and move around it.

Functional Design Type – The purpose of the Functional Design Type is to classify streets according to the character of service they are intended to provide and to design those streets so that they fit their context and serve multiple users. Each street is labeled, in this document and in mapped form, with one of the three Street Types – Collector-Avenue, Arterial-Boulevard, and Arterial-Parkway.

Geometric design – Design that deals with the dimensions of a street and the relationships of its features such as alignment, profile, grades, widths, sight distances, clearances, and slopes.

Lane miles - A lane mile reflects a street segment’s length, multiplied by its number of lanes. For example, a two-lane road that is one mile long creates two lane miles.

Land use – The type of use activity (residential, industrial, mixed use, etc.) occurring on a land parcel or within a building situated upon a land parcel. For example, a building on the corner of a city block, with shops on the ground floor and residences located above, is a “mixed use” land use.

Light Imprint – The term generally used for such sustainable design practices is Low Impact Development (LID), a relatively new stormwater management strategy that is used in several cities and towns across the country including Nashville. Examples of local LID projects can be found on the Metro Water Services website under Stormwater at http://www.nashville.gov/stormwater/index.asp. Similar to LID, but broader in its scope, is Light Imprint Development, which includes but goes beyond stormwater management. Light Imprint adds to sustainable stormwater management practices the development of compact, walkable neighborhoods in accordance with New Urbanist principles, See http://www.lightimprint.org/ for further information.

Low Impact Development – Low Impact Development (LID) practices are engineering techniques that slow, store, filter and infiltrate stormwater using natural materials like vegetation and stone. These techniques contrast with traditional stormwater sewers, which quickly move large amounts of runoff into large capacity storage basins or directly into water bodies. LID’s primary goal is to reduce runoff volume by infiltrating rainfall water to groundwater, evaporating rainwater back to the atmosphere and finding beneficial uses for water rather than exporting it as a waste product down storm sewers. The result is a landscape with less surface runoff and less pollution damage to lakes, streams and coastal waters. (Source: Natural Resources Defense Council.)

Major and Collector Street Plan (MCSP) – The comprehensive plan and implementation tool for guiding public and private investment in the streets and highways that make up the backbone of the city’s transportation system. It further refines the guiding principles of Mobility 2030, the transportation element of Nashville and Davidson County’s larger General Plan, and by mapping the vision for Nashville and Davidson County’s major and collector streets.

Metropolitan Planning Organization (MPO) – The regional planning agency responsible for transportation planning and approval of federal transportation funding for the region including Davidson, Rutherford, Sumner, Williamson, Wilson and parts of Maury and Robertson counties.
Mobility – The ability to move people and goods via multiple transportation modes (pedestrian, bicycle, mass transit, freight and motor vehicle) through an area.

Pedestrian refuge – a small section of pavement between travel lanes within an intersection where pedestrians can stop for safe crossing of the full intersection. A refuge should be provided where medians exist or introduced into a cross section where intersection widths are too long to cross in one safe movement.

Segments – The parts of streets that run between intersections. This is where pedestrian, bicycle and vehicle elements like sidewalks, bike lanes and travel lanes influence safety and congestion.

Shared pavement marking – Sometimes called a “sharrow” (shared-arrow) or “bike chevron,” this is a pavement marking that highlights a bike route when a street does not have enough room for a striped bike lane. This pavement marking lends greater legitimacy to bike routes than “Share the Road” signs.

Street Context – The Street Context adds to the understanding of context by defining the predominant existing or intended development pattern flanking a given street section. This designation influences design elements like setbacks and sidewalk widths. The three Street Context designations used in this document are Residential, Mixed Use, and Industrial.

Transect (Environment): – A system for categorizing, understanding and designating the various levels of development within a region, from the most rural to the most urban. Nashville and Davidson County’s Transect consists of seven categories of natural and built environments:

- T1 Natural
- T2 Rural
- T3 Suburban
- T4 Urban
- T5 Center
- T6 Downtown
- D District

The Major and Collector Street Plan covers six Transect categories. T1 Natural areas have roads, but they are often local roads, which are not addressed in the MCSP. Districts vary, so streets running through them have Functional Design Types applied that correspond with the most logical adjacent Transect Category.

For example: T3 Suburban-Residential-Collector-Avenue.

Trip lengths – The distance of a given trip. Shorter, more direct trips via interconnected streets and pedestrian networks foster transportation options that include walking, biking, and transit in addition to driving.

Vehicle Miles Traveled (VMT) – The total number of miles traveled by all vehicles in a given geographic area. VMT per capita, especially if it’s over 30 miles per person, is often associated with poor air quality, increased risk for obesity and related chronic health problems, and auto crash rates.

Regional Transportation Plan (RTP) – The document resulting from regional collaboration and consensus on the region’s transportation system, and serving as the defining vision for the region’s transportation systems and services. In metropolitan areas, this is the official multi-modal transportation plan addressing no less than a 20-year planning horizon that is developed, adopted, and updated by the Metropolitan Planning Organization (MPO).
CREDITS

METROPOLITAN PLANNING COMMISSIONERS

Mr. James McLean, Chairman
Mr. Hunter Gee, Vice-Chairman
Mr. Stewart Clifton
Ms. Judy Cummings
Mr. Derrick Dalton
Ms. Ana Escobar
Ms. Tonya Jones
Mr. Phil Ponder

Mayor Karl Dean, Ex-Officio

Ms. Andree LeQuire, Ex-Officio Representing Mayor Karl Dean

Councilmember Jim Gotto, Chair, Metropolitan Council Planning Committee, Ex-Officio

PLANNING DEPARTMENT

Executive Office / Administration
Rick Bernhardt, Executive Director
Ann Hammond, Assistant Executive Director/Planning

Jennifer Carlat, Planning Manager II, Community Plans and Design Studio
Bob Leeman, Planning Manager II, Land Development and Design
Jennifer Higgs, Division Manager, GIS and Mapping Services

Metropolitan Planning Organization / Transportation

Michael Skipper, MPO Director

The production of this plan was primarily the responsibility of the Community Plans and Design Studio Divisions.